





THE  
CANADIAN  
ROSE ANNUAL  
2002

Doreen Stanton

EDITOR



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## EDITOR'S NOTEBOOK

It is nearing the end of July and I am nearing the end of this year's editing job: time for me to comment on this year's experiences hunting and gathering material for the Annual. Because of my time in Charleston, South Carolina, last October at the 9<sup>th</sup> International Heritage Rose Conference I conceived the idea of making the theme of this issue (what else?) Old Roses. Two of the topics particularly interested me: DNA testing of Old Roses and the history of their moving about the world, which does not mean that everything else I heard was not interesting—it was. Everything about that trip was fascinating.

As you can tell, it was only a month after the tragedy of September 11<sup>th</sup> and when I arrived at Pearson Airport in Toronto, only three people besides the Air Canada employees and other workers could be seen and it was 11 o'clock of a Saturday morning!! There were a few more people on the flight and Charleston is a small airport so it did not seem quite as lonely.

Charleston itself is a smallish old city, well south of the Mason-Dixon Line and a very different part of the United States, at least to me. Our hosts at the Conference were Old South for the most part, anxious to show off their lovely city and eager to tell us their version of the Civil War. Not that they aren't loyal Americans but they have a somewhat different view of their history.

There were people from all over the world, all in love with roses of whatever variety and some familiar faces: the Grabers from Toronto and Claire Laberge from Montreal in particular. I met people from our west coast and we promptly found mutual acquaintances.

With the help of Barbara Clarke, we have enlarged the section on Public Rose Gardens in Canada. As noted in the article itself, we are anxious to hear of any we may have missed or which have been or are being created since the list was compiled. The gardens do not have to be large and luxurious. Well-planted, well-cared for roses identified either at the plant or by means of maps or graphs will please, if not delight, visiting rosarians and the public in general. And if you know of a new garden or one for which we have a minimum of information and want to write a "promo", with pictures, please(!) you will delight the Editor, too.

This is Richard Chambers' first Clearing House and a good one it is, too. In spite of his worries, there were many contributors and a good number of reports, but like Audrey Brisbane in the past, he is not the least bit smug about the results. He wants more(!) so there is a sheet of report forms enclosed with this Annual. He will be somewhat satisfied if you fill out all four; he will surely fall on your neck and kill the fatted calf, in the Biblical phrase, if you copy it



several times and fill out all of them. As I said last year, you do not have to be a wonderful essayist to participate: just grow some new roses (look in *The Clearing House* for ideas) and write your comments.

We had a number of people we wanted you to know more about including the two new authors who provided us with short “bios” that did not fit in too well at the beginning of their articles. We gathered them all up and we think you will find them interesting. As an amateur psychologist, I’d say they were all suffering from a serious but non-life-threatening addiction and you may want to add: “It takes one to know one!”

My proofreaders, Anne Graber, Richard Chambers, Judith Roback, Phil Webster, and Phyllis Garden have all worked hard to keep the articles correct in spelling, grammar and content. Not always an easy task, particularly when you have writers talking about roses that do not seem to be listed in any available book and yet, the author himself should be authority enough and you hate to impugn his reputation by your own lack of knowledge. We don’t seem to have found any problems that were not eventually resolved. Katharine Barber, Editor-in-chief of the Canadian Oxford Dictionary, reassured me of the spelling and meaning of some of the new words in the article on DNA. The printer, Steve Bass, continues to make all our efforts come to fruition in the best-looking way. We trust you find the articles a “good read” and that they add to your knowledge of the rose and your enjoyment in growing them.

Like many another similar group, this Society is badly in need of new members. The ones we have are enthusiastic and work hard in many ways to promote the Society but it seems to be an uphill battle and reaching new gardeners and introducing them to the joys of rose-gardening is at times near impossible. We have such a wonderful product in the rose; it is sad not to share it with everyone. If you love the rose as we do and have fresh ideas about evangelizing the young, in particular, you will find any of the “officials” listed in these pages eager and willing to listen.

I should add one personal note to these remarks. Your Annual may be late (though I hope not) because as completion was in sight, my husband died very suddenly though not altogether unexpectedly. Needless to say, there was a break for the funeral and the attendant duties. The kindness and love of my rosarian friends bore me up through it all. It is to all of them that I must give the credit for helping me to finish it.

*Doreen Stanton*

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**PRESIDENTS**  
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## CANADIAN ROSE SOCIETY DEMONSTRATION ROSE GARDENS

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Brad Jalbert	22771-38th Ave., Langley, B.C. V2Z 2G9	604-530-5786	Breeds Miniatures and others Most other Classes
Art & Dorothy Pastro	5226 McKee St., South Burnaby, B.C. V5J 2T6	604-435-7769	Exhibition Roses
Janet A. Wood	7084 Blenheim St., Vancouver, B.C. V6N 1R9	604-263-8700	Climbers and Most Others
Don Heimbecker	2107 Hope St. S.W., Calgary, Alta. T2S 2H3	403-244-0060	Hybrid Teas
Wm. Archibald	12 Heritage Court., Prince Albert, Sask. S6V 8E1	306-922-2528	
Betty Biddulph	39 Bathgate Bay Winnipeg, Man. R3T 0L3	204-284-6541	Old Roses Hardy Roses
Jim Anderson	8 Melville Cres., Brampton, Ont. L6W 2S4	905-459-6518	Most Classes
Donna & Frank Barkey	4405 Townline Rd. N. R.R.2 Blackstock, Ont. L0B 1B0	905-655-3561	
Barbara & Ron Bishop	288 Magnolia Dr., Hamilton, Ont. L9C 6P9	905-387-4936	Hybrid Teas Miniatures
Edna Caldwell	R.R. 1 Shanty Bay, Ont. L0L 2L0	705-721-0484	Hybrid Teas Hardy & Old Roses
Ron & Sandra Capon	Prime Shores, GMB 26 R.R. 1 Thornbury, Ont. N0H 2P0	519-599-6779	Miniatures Hybrid Teas



Claire & Ian Finch	21 Ashall Blvd. Toronto, Ont. M4B 3C2	416-755-9735	Hybrid Teas Most Classes
Kenneth & Rachel Flood	155 Edgehill Dr., R.R. 3 Kitchener, Ont. N2P 2C6	519-653-9505	Most Classes
Ray & Eleanor Hopkins	14 Lawrence Ave. Stoney Creek, Ont L8G 2M7	905-664-4592	Hybrid Teas OGR's
Walter Lemire	R.R.1 Oldcastle, Ont. N0R 1L0	519-737 6788	Hybrid Teas
Larry Loughheed	19 Sundance Cres Scarborough, Ont. M1G 2M1	416-439-7494	Hybrid Teas
Lucille McDonald	240 John St., Gananoque, Ont. K7G 1A7	email mcdonald- kenny@sprint.c om	
Meredith Miller	651 Walkersfield Rd., Peterborough, Ont. K9J 4W1	705-745-5128	Hybrid Teas Floribundas
Doreen Stanton	172 Maplehurst Ave. Willowdale, Ont. M2N 3B9	416-229-0656	Hybrid Teas Miniatures
Louise Veffier	21 Lescon Rd. Willow- dale, Ont. M2J 2G7	416-493-1645	Shrubs Miniatures
Gerry Wade	205 Cherry Ct. Barrie, Ont .L4N 4A5	705-722-6163	Miniatures Many Others
Mary & Bob Nason	65 Union Blvd. St. Lambert, P.Q. J4R 2M4	450-672-1893	Hybrid Teas Miniatures
Eileen Ouellette	19 Bras d'Or Ave Pointe Claire, P.Q. H9R 1W5	514-695-4796	



## **PUBLIC ROSE GARDENS IN CANADA**

The rose is known throughout the world as the queen of flowers. The colour, form and fragrance of a rose bring so much pleasure to our lives, but when travelling in Canada, obtaining information on rose gardens can be difficult. The travel agent or tourist board may know of a large botanical garden but not the rose gardens in smaller cities and towns. Even people who live within a short distance may not notice or know of the beautiful roses in their area.

The following information on rose gardens has been compiled by various members of the Canadian Rose Society and its affiliate societies. Some of these gardens are large while others are small; some charge for admission; some are open to the public year round while others have specific times and some are by appointment only. We advise you to check before visiting the gardens as some particulars may change.

We hope you will enjoy visiting these rose gardens. Let us know which ones you visited and enjoyed the most. We would like to include the number of roses and any special features for each garden so if you can provide us with more information on a garden or you know of a garden that is not recorded, please contact the editor or the secretary of the Society or email [crs@mirror.org](mailto:crs@mirror.org)

### **ALBERTA**

#### **OLDS COLLEGE ROSE GARDEN**

**Address:** Olds, Alberta

**Specialties:** Species and shrubs, many early Canadian roses

#### **CALGARY ZOO ROSE GARDEN**

**Address:** Calgary, Alberta

**Admission Charge:** Yes

#### **DEVONIAN ROSE GARDEN—THE BETA SIGMA PHI ROSE GARDEN**

**Address:** University of Alberta, Edmonton Alberta. T6G 2E1

**Admission Charge:** For Rose Arboretum or any other part of the Garden : Adult- \$6.50, Senior - \$5.75, Youth/Student (12-17 years) - \$5.75, Child (2-11 years) - \$4.00 (children under 2 - Free), Family - \$20.00 (2 adults and up to 3 children under 12 years)

**Number of Rose Plants:** Between 150 - 200 different kinds of Roses or groups of Roses

**Main Bloom Period:** June - July

**Administered by:** Dr. Michael Hickman (Associate Director)

**Contact:** Barry Greig, Devonian Botanic Garden (address as above), **Telephone:** 780-987-3054, **Fax:** 780-987-4141,

**Email:** [bgreig@ualberta.ca](mailto:bgreig@ualberta.ca)

**Rose Specialties:** Species Roses

**Website:** [www.discoveredmonton.com/devonian](http://www.discoveredmonton.com/devonian)

**ST. ALBERT ROSE GARDEN**

**Address:** Red Willow Park, St. Albert, Alberta

**Number of Plants:** 500

**Contact:** Gudrin Bublitz

**Administered by:** Society of Friends for the St. Albert Public Gdn.  
33 Ash Crescent, St. Albert, Alberta. T8N 3J6

**Phone:** 780 459-7912

**Fax:** 780-459-0662

**Specialties:** Species and shrubs, hardy Canadian roses

**Comments:** See article Annual 1997

**BRITISH COLUMBIA**

**BURNABY CENTENNIAL ROSE GARDEN**

**Address:** Burnaby Mountain Park, Burnaby, British Columbia

**MINTER GARDENS**

**Address:** Trans Canada Highway and #9, Chilliwack, British Columbia. (located 90 minutes east of downtown Vancouver, B.C. on the Trans-Canada Hwy.#1 at exit #135.)

**Admission Charge:** Yes

**Specialties:** Cross section of all types of roses, including miniatures

**Website:** [www.mintergardens.com/](http://www.mintergardens.com/)

**Comments:** Conveniently nestled against 7000 foot Mt. Cheam in the coastal mountains of beautiful British Columbia, Minter Gardens consists of 11 theme gardens on 27 acres. See article Annual 2000

**CENTENNIAL ROSE GARDEN**

**Address:** Dogwood Pavilion 621 Poirier St., Coquitlam, British Columbia

**Specialties:** Modern H.T.'s and Floribundas

**PARK AND TILFORD GARDENS**

**Address:** 240 Colton St., North Vancouver, British Columbia

**BUTCHART GARDENS**

**Address:** Saanich, Vancouver Island (20 km north of Victoria), British Columbia

**Admission Charge:** Yes

**Website:** <http://carver.pinc.com/butchart>

**ORNAMENTAL GARDENS INTERPRETIVE CENTRE**

**Address:** Summerland, British Columbia

**Administered by:** Brian Stretch, Box 1363, Summerland BC V0H 1Z0

**Comments:** See article "Will Eddie's Roses Please Show Up!!" Annual 1999.

## **UNIVERSITY OF BRITISH COLUMBIA ROSE GARDEN**

**Address:** UBC, Crescent Road, Vancouver, BC V6T 1Z1

Located on Crescent Road at the north end of Main Mall, between the University Centre (former Faculty Club) and the Chan Centre for the Performing Arts. The Rose Garden Parkade is beneath the Rose Garden, with the entrance on North West Marine Drive, across from the Museum of Anthropology.

**Admission Charge:** Free

The only time access to the Rose Garden might be restricted is when a wedding party or a photo shoot which has been booked.

**Number of Rose Plants:** About 450 plants.

**Main Bloom Period:** June through September

**Administered by:** Plant Operations

**Contact:** David Smith; Tel: 604-822-0014; Fax: 604-822-6969; E-mail: david.smith@ubc.ca

**Specialties:** This is a display garden, with mostly hybrid tea and floribunda roses. Not many shrubs or ramblers. There are about 20 varieties, with some changes each year.

**Comments:** The Rose Garden is part of 400 acres of campus gardens maintained by Plant Operations. The original rose garden was established in 1949, under the direction of Frank E. Buck, Supervisor, Campus Development. The American Rose Society designated it an Experimental and/or Display Garden for 1951. The garden was closed in 1995 for the construction of the Chan Centre and parkade. The Centre and parkade opened in 1997 with a new rose garden, and attractive new landscaping. The new rose garden was designed by Perry & Associates, Landscape Architects. The Museum of Anthropology is across the street. The Nitobe Japanese garden is close by. It is administered by the UBC Botanical Gardens, which are located further along NW Marine Drive, on the west side of the campus. David Tarrant wrote about the Asian Roses in this garden in the 1998 Annual

**Website:** None at present.

## **VAN DUSEN BOTANICAL GARDEN**

**Address:** 37th and Oak St., Vancouver, British Columbia

**Admission Charge:** Yes

**Specialties:** Cross section of all types of roses, including Miniatures

**Website:** [www.vandusengarden.org](http://www.vandusengarden.org)

## **STANLEY PARK ROSE GARDEN**

**Address:** Vancouver, British Columbia

**Specialties:** Cross section of all types of roses, including Miniatures

## **HORTICULTURAL CENTRE OF THE PACIFIC**

**Address:** Vancouver Island, British Columbia

**Specialties:** Modern H.T.'s and Floribundas

## **MEMORY LANE ROSE GARDEN**

**Address:** Polson Park, Vernon, British Columbia,

## **VICTORIAN GARDEN**

**Address:** Government House, Rockland Avenue, Victoria, British Columbia

**Specialties:** Old Garden Roses. Collection of David Austin Roses

**Comments:** A large circular rose garden in the Victorian style, wrought iron structures, a mix of old and modern roses. The sunken rose garden at the same address is a new garden, somewhat Italian in style (no grass) containing 87 bushes, mainly old roses and David Austin roses. Both these gardens are maintained by volunteers, with some help from full-time staff.

## **MEMORIAL ROSE GARDEN, WALTER WRIGHT PIONEER VILLAGE**

**Address:** Dawson Creek

**Specialties:** Explorers and other hardy roses

**Comments:** Contact Anita Haight 250-843-7419. See article Annual 2000 for description.

## **ROYAL ROADS UNIVERSITY**

**Address:** 2005 Sooke Road, Victoria, British Columbia

## **MANITOBA**

## **ASSINIBOINE PARK**

**Address:** 2355 Corydon Ave., Winnipeg, Manitoba

## **AGRICULTURE CANADA RESEARCH STATION**

**Address:** Morden, Manitoba

**Specialties:** Canadian Shrub roses

**Website:** <http://res2.agr.ca/winnipeg/pagetwo.htm>

**Comments:** Dr. Campbell Davidson directs this station and has written a number of articles for the Annual.

## **NEWFOUNDLAND**

## **MEMORIAL UNIVERSITY GARDEN**

**Address:** Sir Wilfred Grenfell Campus, Cornerbrook, Newfoundland

## **MEMORIAL UNIVERSITY CAMPUS GARDEN**

**Address:** Elizabeth Avenue, St. John's, Newfoundland

## **NEW BRUNSWICK**

## **LE JARDIN BOTANIQUE DE NEW BRUNSWICK**

**Address:** Saint-Jacques, New Brunswick

**Admission Charge:** Yes

## **NOVA SCOTIA**

### **THE HISTORIC GARDEN**

**Address:** Annapolis Royal, Nova Scotia

**Specialties:** Old Garden Roses. See article Annual 2001.

### **HALIFAX PUBLIC GARDEN**

**Address:** Spring Garden Road, Halifax, Nova Scotia

### **HALIBURTON HOUSE**

**Address:** Clifton Avenue, Near Hwy 101, Windsor, Nova Scotia

## **ONTARIO**

### **CENTRAL PARK**

**Address:** New Street, Burlington, Ontario

### **NELSON PARK**

**Address:** New Street, Burlington, Ontario

### **ROYAL BOTANICAL GARDENS**

**Address:** 680 Plains Rd. W., Burlington, Ontario

**Admission Charge:** Yes

**Specialties:** Cross section of all types of roses, including miniatures

**Website:** [www.rbg.ca/index2.html](http://www.rbg.ca/index2.html)

### **UNIVERSITY OF GUELPH ARBORETUM**

**Address:** Hwy. 6, Guelph, Ontario

### **FREEPORT HOSPITAL, HEALTH CARE VILLAGE**

**Address:** King St. E., Kitchener, Ontario

**Specialties:** Modern H.T.'s and Floribundas

**Comments:** The Golden Triangle Rose Society is involved in taking care of this garden.

### **RAYNER ROSE GARDEN**

**Address:** Springbank and Wonderland, London, Ontario

### **ST. LAWRENCE PARK COMMISSION**

**Address:** Morrisburg, Ontario

**Comments:** See the Annual of 1999 for an article on the Queen Elizabeth Gardens here.

### **NIAGARA PARKS BOTANICAL GARDENS**

**Address:** Niagara Falls, Ontario

**Number of Plants:** Approx. 2,300

**Main Bloom Period:** Mid June to late September

**Contact:** Niagara Parks, Tel: 905-356-8554 or Fax: 905-356-5488

**Administered By:** The Niagara Parks and School of Horticulture

**Admission Charge:** No

**Specialties:** Hybrid Teas, Grandifloras, Floribundas and Modern Climbers

### **VICTORIA PARK RESTAURANT AND GREENHOUSE GARDENS**

**Address:** Niagara Parkway, Niagara Falls, Ontario

**Specialties:** Modern H.T.'s and Floribundas

**Comments:** There are several little gardens in this area but really only a few roses. There are, of course, lots of interesting spots at the Falls. Although there is no admission fee, the parking is at least \$8.00 per car.

#### **GAIRLOCH ESTATE**

**Address:** 1306 Lakeshore Rd. E., Oakville, Ontario

**Specialties:** Modern H.T.'s and Floribundas

#### **AGRICULTURE CANADA CENTRAL EXPERIMENTAL FARM**

**Address:** Prince of Wales Drive, Ottawa, Ontario

#### **THE CANADIAN HERITAGE GARDEN/JARDIN DU PATRIMOINE CANADIEN**

**Address:** Rideau Hall, Ottawa, Ontario

**Contact:** Visitors services 613-998-7113 or 1-800-465-6890

**Admission Charge:** No

**Number of Plants:** 300 rose varieties

**Specialties:** Hardy shrub roses Canadian heritage roses

**Comments:** The rose garden is the celebration of the 125th anniversary of Confederation; it is an historical monument and reflection of the country's cultural diversity. See the Annual of 1999 for two articles on the building of this garden.

#### **EDWARDS GARDENS**

**Address:** Lawrence Avenue at Leslie, Toronto, Ontario

**Specialties:** Modern H.T.'s and Floribundas, Old Garden roses

#### **CANADIAN NATIONAL EXHIBITION PARK**

**Address:** Lakeshore Ave. W., Toronto, Ontario

**Specialties:** Modern H.T.'s and Floribundas

#### **CASA LOMA HISTORICAL GARDEN**

**Address:** Spadina at Davenport Rd., Toronto, Ontario

**Admission Charge:** Yes

**Specialties:** Modern H.T.'s, Floribundas, Old Garden Roses

#### **HUMBER ARBORETUM**

**Address:** Humber College Boulevard, Toronto, Ontario

**Specialties:** Shrub Roses

#### **ROSETTA PARK**

**Address:** Kingston Rd East of Birchmount on the South side, Toronto, Ontario

**Specialties:** Different types. Fifteen to twenty large beds with approximately a hundred roses in each bed and each bed is a different colour

**Comments:** Beautiful view of Lake Ontario, annual beds are outstanding. It's only a tiny park that few people know about. The centre has a huge boulder and water fall for picture taking of weddings; large rose beds are planted by colour; there is a lot of



shade planting, and a large arbour covered in wisteria which was beautiful this year just hanging in flowers. A peaceful park for sitting looking out at the sailboats, reading and people watching. The roses are all varieties, and the park is open to the public but closes its gates in the evening once it gets dark.

#### **CHIPPAWA PARK**

**Address:** Welland, Ontario

#### **QUEEN ELIZABETH GARDENS**

**Address:** Jackson Park, Tecumseh Rd., Windsor, Ontario

**Specialties:** Modern H.T.'s and Floribundas

#### **PRINCE EDWARD ISLAND**

#### **MALPEQUE GARDENS**

**Address:** Blue Heron Drive, Route 20, Malpeque, Prince Edward Island

#### **QUEBEC**

#### **ROSERAIE DU TEMISCOUATA**

**Address:** Fort Ingall, Cabano, Quebec

#### **CITY OF MONTREAL ROSE GARDEN**

**Address:** Île Ste. Hélène, Quebec

**Specialties:** Modern H.T.'s and Floribundas

#### **LE JARDIN BOTANIQUE DE MONTRÉAL**

**Address:** 4101 Sherbrooke St. E., Montreal, Quebec

**No. of Plants:** 10,000 rose bushes

**Admission Charge:** Yes

**Specialties:** Cross section of all types of roses, including miniatures

**Website:** [www.ville.montreal.qc.ca/jardin/jardin.htm](http://www.ville.montreal.qc.ca/jardin/jardin.htm)

**Comments:** Claire Laberge is Rose Horticulturist here. She has written a number of articles for the Annual including one on the Gardens in the 1997 edition and she loves to show off her garden.

#### **THE CONNAUGHT ROSE GARDEN**

**Address:** Mount Royal, Quebec

**Specialties:** Modern H.T.'s and Floribundas

#### **LES FLORALIES ROSE GARDEN**

**Address:** Île Ste. Hélène, Montreal, Quebec

**Specialties:** Modern H.T.'s and Floribundas

#### **GORDON PARK**

**Address:** St Lambert, facing Hotel de Ville, Quebec

**Specialties:** Winter Hardy Roses, in particular the Canadian Explorer Roses

**Comments:** The Société des Roses du Québec Rose Society is involved in taking care of this garden

## C. R. S. SUSTAINING MEMBERS—2002

*The Canadian Rose Society would like to thank the following Life & Sustaining Members for their generous support this past year.*

Denise Anderson	James &	Arthur J. Olsen
Jim Anderson	Annette Gillies	Madelaine Paquette
Wm. Archibald	Bonnie Goodine	Photos Philos
Mary Ash	Maria &	Virginia Perkins
Mary Baillie	Manuel Goulart	Valerie Powell
Craig &	Paul & Anne Graber	Fern A. Rahmel
Carol Bamford	William H. Gray	Wendy Reiner
Frank Barkley	Anita Haight	Peter Schneider
John Beedle	Ken Hardy	Alfred E. Schoenberg
Edward Bennett	Pauline Hargraves	Doreen Stanton
Debbie Berg	Oleh Halkewycz	Herbert Stott
Betty Biddulph	Jon Hore	Toshiro Suzawa
Ted Bissland	Raye Jacobe	Dr. Felicitas Svejda
Nancy Bounsall	Vincent & Pamela	Shirley M. Turner
Charles Bowyer	Kelly	Astrida Valkirs
Betty Bruce	Terry &	Louise Veffer
Inge Buchardt	Dorene Kelsey	Philip Webster
William Burt	Stephen &	Anne Wilson
Milton &	Vicki Knowlton	Dr. Patrick White
Maxine Cadsby	Stan Krasnicki	Muriel Woolson
Peter Caldana	Henry &	
Wendy Caldwell	Barbara Kuska	
Doris Campbell	Leslie Laking	
Wayne Cardinal	Keith & June Laver	
Elsie Cecchini	Florence Lazar	
Richard Chambers	Norman Levesque	
Barbara Clarke	Nancy Lindley	
John Cockbain	Dion A. Litvaniks	
Geoffrey Cook	James MacDonald	
Sidney Dodd	George Mander	
Wendy &	Randy Manning	
Gord Downing	Elsie Marcon	
Anni Dyck	Brenda Marriott	
Eiko & Kiyo Endo	Richard Martin	
Peter G. Fawcett	James Maynard	
Rachel Flood	Patricia Joan	
Thomas W. Fox	McCarthy	
Rowland C. Frazee	John McLean	
Ethel Freeman	Audrey Meiklejohn	
Cam Galli	Carline M. Oakley	



**CANADIAN ROSE SOCIETY  
ACCREDITED JUDGES**

*Chairman: Jim Anderson, 8 Melville Cres., Brampton, Ont. L6W 2S4  
Committee*

*Denis Creighton, Rachel Flood, Gerry Wade*

**ALBERTA**

John Beedle, Ann Owens, Ken Owens, George Shewchuk

**BRITISH COLUMBIA**

Edwina Bauer, Audrey Brisbane, Garry Brust, Helen Collicutt,  
Joan Dobell, Jean Hay, Viola Heaslip, Dion Litvaniks,  
Orma Longphee, Terence Martinich, Beverley Matheson,  
Lesley McCullough, Susan Mills, Caroline Ross, Monica Semsch,  
William Watson, Patrick White, Anne Williams, Denis Yeomans

**MANITOBA**

Betty Biddulph, Serge Legault

**NOVA SCOTIA**

Iris Chambers

**ONTARIO**

Frances Ahara, Jim Anderson, Marjorie Bell, Shirley Binns, George  
Blyth, Lotte Brunner, Betty Budd, Milton Cadsby, Edna Caldwell,  
Reta Caldwell, Wendy Caldwell-Halkewycz, Richard Chambers,  
Barbara Clarke, Jan Cooper, Denis Creighton, Rosemary Dobson,  
Wendy Downing, Claire Finch, Rachel Flood, Paul Graber, Anne  
Graber, Kate Grant, Ivy Gross, Beryl Harris, Marlene Hawkins,  
Stephen Knowlton, Cecil Lamrock, June Laver, Margaret Leech,  
Mildred Legrow, Walter Lemire, Larry Loughheed, Norman  
MacKay, Ken McFarquhar, Donna McQuay, Audrey Meiklejohn,  
Dave Money, Mary Mordy, Jean Morrow, George Pagowski, Marie  
Pearson, Robert Pottle, Pauline Richards, Elizabeth Schleicher,  
Helmut Schleicher, Marion Soules, Peg Spence, Ellen Spencer,  
Edward Stafford, Doreen Stanton, Gerry Wade, Kathy Wade, Phil  
Webster, Bob Whitlock, Pamela Wright

**QUEBEC**

Mary Baillie, Christian Bedard, Lloyd Chan, Michel Jaffre, Tatiana  
Kochanski, Claire Laberge, Bob Nason, Mary Nason, Eileen  
Ouellette, Veronique Poliquin

*For further information call or write Jim Anderson  
905-459-6518 or Fax 905-459-3963*

## ROSE CONSULTANTS

The Canadian Rose Society has developed a program of Rose Consultants who are available to be called upon by both Affiliated Rose Societies and Garden or Horticultural Societies as well as members of the general public. Their purpose is to provide help and information on the growing of roses particularly in their own parts of the country where they have the most experience. Many are familiar with conditions in other areas or can get the information in short order. All have grown roses for a number of years and have served the Canadian Rose Society in many ways; as Regional Directors or members of the Board, as Demonstration Gardeners, or as Judges. All have shown a desire and willingness to communicate and share their knowledge as speakers or writers and as assistants at Rose Shows or other displays of plants and roses.

Jim Anderson	8 Melville Cres., Brampton, Ont. L6W 2S4	905-459-6518
William A. Archibald	12 Heritage Court., Prince Albert, Sask. S6V 8E1	306-922-2528
Mary Baillie	145 Brandy Rd., Foster, Quebec J0E 1R0	450-539-2906
John Beedle	104-20-Grange Drive, St. Albert, Alta. T8N 6J1	403-459-6960
Marjorie Bell	Box 106, R.R. 3 Shanty Bay, Ont. L0L 2L0	705-722-8732
Betty E. Biddulph	39 Bathgate Bay, Winnipeg, Man. R3T 0L3	204-284-6541
Barbara Bishop	288 Magnolia Drive, Hamilton, Ont. L9C 6P9	905-387-4936
George A. Blyth	#409-65 Westmount Rd. N. Waterloo, Ont. N2L 5G6	519-886-6335
Audrey Brisbane	1146 Lucille Drive, Brentwood Bay, B.C. V8M 1H6	250-652-4071
Ralph S. Bullough	R.R. #14 Thunder Bay, Ont. P7B 5E5	807-767-2331
Edna Caldwell	R.R. #1, Wayside Designs, Shanty Bay, Ont. L0L 2L0	705-721-0484
Reta Caldwell	R.R.#1-#4402, Shanty Bay, Ont. L0L 2L0	705-721-1777
Ron & Sandra Capon	Prime Shores, GMB 26, R.R. #1, Thornbury, Ont. N0H 2P0	519-599-6779

Aileen May Carter	175 Shaughnessy Bl., Apt. 1605, Willowdale, Ont. M2J 1K1	416-493-7971
Iris Chambers	R.R. 2 Box 5, Jedore, Oyster Ponds, N.S. B0J 1W0	902-889-9275
Richard W. Chambers	157 Pinewood Ave., Toronto, Ont. M6C 2V6	416-653-9654
Barbara Clarke	476 Martingrove Road, Etobicoke, Ont. M9B 4M4	416-622-6422
Janeth Cooper	70 Plateau Crescent, Don Mills, Ont. M3C 1M8	416-444-6882
Denis Creighton	3 Naylor Street, Maple, Ont. L6A 1R8	905-832-1101
Joan E. Dobell	10675 Madrona Dr., North Saanich, B.C. V8L 5L8	250-656-8666
Wendy Downing	180 Dalewood Cres., Hamilton, Ont. L8S 4C1	905-528-7441
Claire Finch	21 Ashall Blvd., Toronto, Ont. M4B 3C2	416-755-9735
Rachel Flood	R.R. #3, 155 Edgehill Dr., Kitchener, Ont. N2P 2C6	519-653-9505
Ethel Freeman	15 Chiltern Hill Road, Toronto, Ont. M6C 3B4	416-787-4451
Jean Gibson	92 Collete Cres., Barrie, Ont. L4M 1Z4	705-722-6685
Ilanthe Christine Goodfellow	Box 123, Pincher Creek, Alta.	403-627-3709
Paul & Anne Graber	10 Fairfax Cres., Scarborough, Ont. M1L 1Z8	416-757-8809
Jean T. Hay	406 Knight Terrace, Qualicum Beach, B.C. V9K 1G2	250-752-2172
Viola Heaslip	1025 Greenridge Cres., Victoria B.C. V8X 3B8	250-479-6563
Brad Jalbert	Select Roses 22771 38 Ave., Langley, B.C. V2Z 2G9	604-530-5786
Denise G. Kennedy	P.O. Box 1463, Stouffville, Ont. L4A 8A3	905-642-2627
Claire Laberge	4847 des Érables, Montréal P.Q. H2H 2E3	514-524-1652

Cecil Lamrock	1670 Coates Road, Port Perry, Ont. L9L 1B3	905-985-5462
Len Lee	461 Gowland Cres., Milton, Ont. L9T 4G6	905-878-4085
Ross B. Linton	Unit 502, 1 Royal Orchard Blvd., Thornhill, Ont. L3T 3C1	416-327-5492
Dion Litvaniks	1086 Chapman Rd., R.R. #1, Cobble Hill, B.C. V0R 1L0	250-743-3979
Orma G. Longphee	2040 Winmeadow Place, Sidney, B. C. V8L 4S3	250-656-0407
Larry Loughheed	19 Sundance Cres., Scarborough, Ont. M1G 2M1	416-439-7494
Fred M. Lyall	#4-4209-25th St., Vernon B.C. V1T 4S2	250-542-7399
Norman A. Mackay	324 Newbold Court, Burlington, Ont. L7R 2Y6	905-637-6401
Lucille McDonald	240 John St., Gananoque, Ont. K7G 1A7	613-382-2333
Dr. Donald M. McLean	Apt. 6-5885 Yew St., Vancouver, B.C. V6M 3Y5	604-263-9076
John McLean	57 Rangeley Drive, Scarborough, Ont. M1B 5L4	416-724-5349
Donna McQuay	19 Bronte Cres., Barrie, Ont. L4N 5B8	705-733-2686
Audrey Meiklejohn	545 Morning Road, R.R. 2, Newmarket, Ont. L3Y 4V9	905-853-8910
Susan Mills	1283 Haywood Ave., West Vancouver, B.C. V7T 1V2	604-922-3364
Robert & Mary Nason	65 Union Blvd., St. Lambert, P.Q. J4R 2M4	450-672-1893
Robert Osborne	Corn Hill Nursery, 2700 Route 890, Corn Hill, N.B. E4Z 1M2	506-756-3635
Eileen M. Ouellette	19 Bras d'Or Ave., Pointe Claire, P.Q. H9R 1W5	514-695-4796
Ken & Ann Owens	1-50410 Range Road, 275 Stony Plain, Alta. T7Z 1Z8	403-963-7489

George Pagowski	Apt. 1103-1966 Main St. W., Hamilton, Ont. L8S 1J6	905-528-2175
Marie Pearson	3272 Valmarie Ave., Mississauga, Ont. L5C 2A8	905-275-7089
Stephen Raven	8 Escallier Place, St. Albert, Alberta. T8N 5T1	780-458-5390
James Scherrer	9 Bluejay Road, Elmira, Ont. N3B 1H9	519-669-5967
Elizabeth Schleicher	2369 Doncaster Drive, Burlington, Ont. L7P 3V9	905-335-9399
Bonnie Semeniuk	R.R. # 7, S-8A, C-D1, Vernon B.C. V1T 7Z3	250-558-0150
Monica Semsch	1700 Enderby Ave., Tsawwassen, B.C. V4L 1T1	604-943-5426
Jean Shack	335 Beachwood Ave., London, Ont. N6J 3J6	519-472-7853
George W. Shewchuk	10231 Fulton Rd., Edmonton, Alta. T6A 3T5	403-466-8852
E. G. "Ted" Stafford	2-1505 Upper Middle Rd., Burlington, Ont. L7M 4M3	905-331-8073
Doreen Stanton	172 Maplehurst Ave., Willowdale, Ont. M2N 3B9	416-229-0656
Michael S. Twigg	4216 Bath Rd., Kingston, Ont. K7M 4Y7	613-389-5802
Louise Veffer	21 Lescon Rd., Willowdale, Ont. M2J 2G7	416-493-1645
Gerry & Kathy Wade	205 Cherry Court, Barrie, Ont. L4N 4A5	705-722-6163
Philip G. Webster	4 Cowley Ave., Etobicoke, Ont. M9B 2E1	416-233-7831
R. Patrick White	3065 Uplands Rd., Victoria, B.C. V8R 6B3	250-592-6640
Janet A. Wood	7084 Blenheim St., Vancouver, B.C. V6N 1R9	604-263-8700
C. Denis Yeomans	4475 Stonehaven Ave., North Vancouver, B.C. V7G 1E7	604-929-6166

## PRESIDENT'S MESSAGE

The CRS Annual, in common with annual reports prepared by institutions, is a record of the past year's transactions and proposed future ones. Reports, written by others, are to be found in these pages. Since the honour of the presidency was bestowed upon me in March, I presided at three meetings of the CRS Board, and have no report to offer. One of these meetings consisted mainly of items "to bring me up to speed". Indeed, the work begun by my predecessors requires, in some cases, further attention. I am reluctant to outline partly-formed plans, which might be taken as a personal agenda. It is the board's function to hear and approve any plan concerning our society. Perhaps you will indulge me in some musing.

Having served on the CRS Board for almost a quarter century, I find the question of declining membership and the cost of serving you, rears its ugly head with monotonous regularity. This matter was raised in the Canadian Rosarian of Summer 2002, and discussion of remedial actions will continue. A disheartening aspect, expressed by several directors, is the disappointing response by the general membership, in recruiting new members.

A subject that has troubled me from time to time, is the accusation that the CRS Board is not democratic and is governed by a clique in Toronto. May I remind the detractors that the Toronto society is the York Rose and Garden Society. Although founded with the help of the CRS, York Rose and Garden Society is an independent club, which has earned a number of distinctive credits. Several of its members serve on the CRS Board, as do members of the Hamilton and Burlington Rose Society, the Golden Triangle Rose Society, and until recently, the Huronia Rose Society. Admittedly, board members reside within two-hours' drive of the CN Tower. How many people would be willing to travel to monthly meetings from Halifax, Calgary or Vancouver? Or vice versa, should the address of our corporate headquarters, as required by Canadian law, be changed? Any individual or regional director may address the Board with any concern, at any time. I assure you, correspondence is promptly dealt with; the delay in furnishing an answer depends on the date of the next board meeting. CRS does not dictate. Our task is to co-ordinate efforts, offer advice, and publish guidelines, such as the Rose Judging Guidelines, but their adoption is in the hands of individual societies. People join clubs for the benefits offered to members; a democracy requires a degree of participation in the governance of a society.

We were saddened to hear of the passing of Mr Robert H.





Keith, a long-time member and constant supporter of this society. His executors delivered a bequest from his estate, a cheque for \$2,500.00. It is heartwarming to realise that, although unable to participate in the society's functions for many years, the CRS occupied a place in his heart. I direct you to the In Memoriam on the next page. On a personal note, I met Bob Keith about a year after my arrival in this country. Later, while working at the Royal Botanical Gardens, I found him most helpful in acquainting me with the vagaries of rose growing in Canada. He often lectured on the subject. May he rest in peace.

At a recent board meeting we were reminded that we should plan celebrations of the CRS' 50th anniversary, due in a couple of years. Please communicate your ideas on how such celebrations ought to be organized. Address suggestions to the CRS secretary, Phyllis Garden, or better, open a discussion in Canadian Rosarian. Editor Ron Bishop would be delighted to hear from members on almost any subject of interest to you.

The Calgary Rose Society is hosting the Goulding Lecture on October 8th, 2002 and the speaker will be Dr. Campbell Davidson. I'm sure we all wish them great success and a large audience! May I remind members that the lecture is to be video-taped, so that those unable to attend may benefit from the presentation. The 2003 lecture was requested by Vancouver Rose Society. Our best wishes to them, too!

It would be Un-Canadian not to mention the weather. A late, cold spring in Southern Ontario, followed, according to the Ministry of the Environment, by the second hottest July and highest humidity on record; Lake Louise frozen in mid-June, I've been told, with two inches of snowfall; unseasonal snowstorms in Calgary in summer, followed by devastating drought in that province and in Saskatchewan. Have you seen the sun in Vancouver this year? And in spite of all the tales of woe, attacks by black spot and Japanese beetles, in the face of bans on the use of pesticides, you persist in growing roses. You're unacknowledged heroes!

May your gardens be filled with roses of such size and beauty, as you've never seen before!

George Pagowski

1st August, 2002



## IN MEMORIAM

### Bob Keith

In a letter to the CBC in Ottawa, dated March 9, 1969, Tom Earle, a senior official of the Bank of Canada and obviously a long time CBC listener, spoke of several changes to CBC Sunday morning programmes including this comment:

“You have also done things to standard features like Bob Keith, the Ontario Gardener. I have always regarded Bob Keith (along with the Bank Rate) as an anchor of civilization. Nevertheless, when he has told me in the past how to grow tuberous begonias, I have never believed him because it never works out that way for me. This morning he told us about it again in a way that suddenly fitted my real life experience. Where begonias were formerly described as organisms having reasonably predictable reactions, I now learn that (a) they like light (b) but do well in shadow (c) like cool (d) but need warmth, and so on. I now believe Bob Keith because I know myself that growing begonias is only possible to seventh sons of seventh sons. Nothing else matters.”

Bob Keith was, for almost 40 years, the CBC's Ontario Gardener with a 15-minute part in the national network's then famous Sunday morning programming. His son, Robbie tells me Bob began his radio career on February 20, 1944 and he broadcasted 1,986 programs—the hand-written and later typed scripts are now archived with the Centre for Canadian Historical Horticultural Studies at the Royal Botanical Gardens, Hamilton/Burlington.

It is interesting to note that in a letter from Ab Kemp (commentator, CBC Farm Broadcast) dated January 28, 1944, Bob was told:

“Each script is to be of sufficient length to fill the fifteen minute period allotted, including opening and closing announcements which are written here. That means that your portion of the script should run 14 minutes and 10 seconds.”

Just how these scripts were prepared is also fascinating. In the beginning, Robbie tells me, his father and mother would sit at opposite ends of the dining room table with his father writing notes about the topics and ideas he wished to convey to the listeners that week. His wife, Daisy, would rewrite them in a more legible fashion so Bob could read them without hesitation, and so they could be timed to the critical 14 minutes and ten seconds each week. Eventually Bob acquired a used wax cylinder dictation machine. He could sit in his study and record the script—to have it typed neatly by a stenographer. And, when a wax cylinder was ‘full’ it was

simply a matter of setting the knife-edged portion of the machine to trim off a very thin layer of wax. This left it in perfect condition for the next recording. I hate to say, it but I remember seeing several of these machines at my first office job with Canadian Oil Companies (White Rose!) back in the late '50s, but the company was no longer using them. I wish I had saved one from the trash!

Bob's CBC show was done 'live' for over a decade and he was required to go into the studios every Sunday, except twice a year, which two Sundays were the allowed holiday time, but recorded scripts were required. Then with little notice, about 1957, the policy changed and he was told that in future all sessions would be recorded and so early each Thursday morning he went first to the studio and from there to work at the family seed business, Keith's Seeds, on King St. East in Toronto.

In Toronto, Bob's program was broadcast at the frequency of 740 on the AM dial every Sunday morning. Many older CBC listeners will remember that the format changed significantly in the latter years when Bob and 'Fresh Air' program host Bill MacNeil chatted informally about gardening.

Bob Keith was not just the Ontario Gardener, but before I tell you about his work in the family business, Keith's Seeds, let me give you an idea of just who he was.

Born to John and Georgina Keith in Winnipeg in 1910, he grew up in North Toronto attending John Ross Robertson Public School, and University of Toronto Schools for his secondary education. His post-secondary education was at the Ontario Agricultural College whence he graduated with a BSA in horticulture in 1932. While at OAC he played football (including on several championship teams) and sang in the annual Gilbert and Sullivan productions. He then worked at OAC for four years (mainly on rose culture) until 1936 when he both married his wife, Daisy Lillian Richards (a 1931 graduate of the MacDonald Institute, then a companion college; now both OAC and MacDonald are integral parts of the University of Guelph), and moved to England where he studied at Kew Gardens in Richmond (London) for 13 months.

Bob and his wife moved back to Toronto in 1937 where he worked in the family business, George Keith and Sons Ltd., noted seedsmen and gardening suppliers, located then at 124 King Street East (now the location of the city's impressive St. James Park). Bob's grandfather, George, had started the family business in 1866 at that original location.

Having a nagging urge to have a more extensive garden personally, he moved his home to the very suburban Richmond Hill

in 1940.

In the early 1950s, the company opened a branch in Thornhill, just south of Richmond Hill, and both locations operated until 1969 when the business was sold: the mailing list bought by Stokes Seeds in St. Catharines and the buildings by others.

I remember buying seed-starting supplies, and flower and vegetable seeds for my garden in the early 50s from Keith's Seeds, as well as from their competitors, Rennie's, right across the street on King Street. I don't believe I knew Bob until just before I moved to Niagara in 1958 to attend the Niagara Parks Commission School of Horticulture but I got to know him well during my final year there, and in the early years following my graduation. In front of me as I write this I have the stub of a warranty card for a Silent Yard-Man lawn mower I bought from Bob at Keith's Seeds on May 30, 1963! It is a model 1010-2; yes I said it is, because I still have the 'pushmobile' reel lawn mower. It would still cut grass (if I had any) except for a broken roller support which an over-anxious TV producer broke during a Weather Network shoot a number of years ago! It was called 'silent' because it was manufactured to tolerances that required the turning reel be adjusted so that it be only the thickness of a piece of newspaper away from the stationary bed knife. In other words, there was no metal grinding against metal as with other brands, and there was thus much less dulling of the blade. I remember during the 20 years I used it that it worked very well.

In 1969 Bob sold the family business and taught horticulture part-time at Humber College. Always active with horticultural societies, especially during his broadcasting career, Bob was awarded the Ontario Horticultural Association's highest award, the 'Silver Medal Award of Merit' at the association's annual conference in June 1979. In 1981, he moved even further north of Toronto, to Orangeville and later was made a lifetime member of that society.

Throughout his life, Bob was interested in all types of gardens and gardening, but roses were his love. He was a long-time member of the Canadian Rose Society, first joining in 1968. By 1969 he was on the board of directors, and served as vice president for a number of years. He was made a Patron of the society in 1981. The work of which he was most proud in the CRS was as an accredited judge. In fact, he was a major force in establishing the judge accreditation standards and procedures for the CRS.

Bob judged roses, and virtually all other horticultural/gardening crops at fall fairs and horticultural shows/meetings all across Ontario and much further afield. His own rose gardens first

in Richmond Hill and then in Orangeville were part of the CRS' programme of demonstration rose gardens and he welcomed visitors from near and far over many seasons.

A few years ago the "Robert H. 'Bob' Keith Arboretum Educational Programs Endowment" was founded at the University of Guelph with the intent of collecting funds that would be applied to the sponsorship of lectures, workshops and horticultural courses at the U. of G. Arboretum. That endowment is a beneficiary of Bob's estate. The endowment will soon be able to sponsor individual lectures and one- or several-day lectures and workshops on gardening--likely three or four per year.

Quoting son Robbie in his eulogy, on March 5, "To be with Dad amongst his roses was to sense his continuing awe of this flower. As tight buds unfurled their inner beauty, the judge in him would critically assess each bloom, while the spirit in him marvelled at their magnificence."

Hail and Farewell from a long-time admirer Bob!

—30—

Art C. Drysdale

**MINUTES OF THE ANNUAL MEETING OF THE  
CANADIAN ROSE SOCIETY,  
Sunday, March 24, 2002, at 2:00 p.m. at the Civic Garden  
Centre, Toronto, Ontario**

As there was a quorum of twenty-five members present, out-going president Elizabeth Schleicher called the meeting to order at 2.05 p.m. She welcomed all members and visitors.

Paul Graber moved, seconded by George Pagowski that the minutes of the Annual meeting , March 25, 2001 be accepted as published in the 2001 Annual. Carried

Elizabeth gave the President's Report, which follows.

Marion Dorosh presented the Treasurer's report noting membership is down this year. She reported a deficit of \$3500 which is less than the 2000 one of \$7600. She introduced our auditor Wayne Kinahan who stressed the need for higher fees. Moved by Marion Dorosh seconded by Denis Creighton that the report be accepted as read. Carried. See page 34.

Elizabeth Schleicher noted the need for a rise in membership fees as the current fee covers only 60% of the costs. Moved by Barbara Clarke, seconded by Dennis Creighton that Regular Members pay \$30.00 and Family, Affiliate, Nursery and Institutions pay \$35.00. Carried.

Moved by Doreen Stanton, seconded by Philip Webster that Wayne Kinahan be appointed as our auditor for the year 2002. Carried

Barbara Clarke, a former Past President, deemed it a great honour, in the absence of Wendy Downing, immediate Past President, to present a Past President's pin to Elizabeth Schleicher. Barbara extended her thanks to Elizabeth which was echoed with a round of applause by the members present.

Ruth Somerville, National Show Chairperson reminded the members of the show dates of June 29<sup>th</sup> and 30<sup>th</sup> at the Scarborough Town Centre.

Barbara Clarke, Mini Show Chairperson, spoke about the 11<sup>th</sup> annual Mini Show at Sherway Gardens July 11<sup>th</sup> and 12<sup>th</sup>. Information was on display. There will be roses for sale.

John McLean spoke to the members about the CRS fundraiser sale of Austin roses and noted order forms were available.

Elizabeth introduced Muriel Stafford and extended congratulations on the occasion of her 96<sup>th</sup> birthday April 1<sup>st</sup>

Claire Finch, in the absence of Wendy Downing, Chairman of the Nominating Committee, presented the following names of people to serve on the Board of Directors for a

term of one year:

Ron Bishop	Aileen Carter
Richard Chambers	Marion Dorosh
Phyllis Garden	Ethel Freeman
Rachel Flood	John McLean
George Pagowski	Elizabeth Schleicher
Doreen Stanton	Louise Veffen

Moved by Denis Creighton, seconded by Claire Finch, that the Directors be elected. Carried. Elizabeth then thanked the group for coming and asked that they support the new President and Board. Moved by George Pagowski, seconded by Richard Chambers that the meeting be adjourned at 2:50 to enjoy Joel Schraven's talk. John McLean introduced Joel.

Elizabeth Schleicher	Phyllis Garden
Past President	Secretary

Following the meeting the new board met. Richard nominated George Pagowski, seconded by Doreen, for President. Carried. Marion nominated Doreen Stanton, seconded by Phyllis Garden, for Vice-President. Carried

Richard moved the meeting be adjourned.

George Pagowski	Phyllis Garden
President	Secretary

### **ANNUAL MEETING - PRESIDENT'S REPORT**

In March of 2001 members joined in 'A Celebration' - 'The Birth of the Millennium' at Canada Blooms. Barbara Clarke, Denis Creighton, Lindsay Creighton and John McLean organized a Canadian Rose Society display which attracted many new members. This was also the launch of what was a very successful Mini rose fundraising sale.

At the Annual Meeting held March 25th at the Civic Garden Centre in Toronto, we welcomed to the Board Phyllis Garden, Secretary/ Membership, Marion Dorosh, Treasurer, Rachel Flood, Chair of Regional Directors. We said goodbye to Ron Capon, Barbara Clarke, Wendy Downing, Anne Graber, Denise Kennedy, Louise Veffen.

The pace slowed as members came to reminisce with Art Drysdale, our guest speaker. Art's presentation, 'Rose Growing - Past and Present', took us down memory lane and on a visual journey to countries far and wide. We also had a glimpse into the future with previews of some new cultivars soon to be introduced into the marketplace.

As the months raced by we found ourselves at '2001 - A



Rose Odyssey'. The National Show hosted by Huronia Rose Society was a delight to savour and enjoy. It was the talk of the town and the place to be on the 24th of June!

Only a few weeks to rest up before the Mini roses beckoned. The 10th All Miniature Rose Show held July 14th and 15th at Sherway Gardens in Etobicoke, Ontario, offered all rose growers a place to come and have fun. There were rose experts on hand to answer questions from the public and Mini rose plants on sale to help generate money for the Society.

Our world became a different place after September 11th. The carefree days of summer seemed so very far away. The memory of the loved ones lost that day will always live in our hearts. We needed an escape from the realities of everyday life. On September 23rd as guest speaker at the Goulding Lecture, Roger Phillips was the answer. His presentation 'Roses--China and Beyond' was thoroughly enjoyed by a very appreciative audience.

The Lecture in conjunction with the First Session of the Canadian Rose Society Judging School kept everyone busy. The students had an opportunity to make use of the newest edition of the *Guidelines for Exhibiting and Judging Roses 2001*.

We also attended various other events throughout the year in order to make the Society more visible to the general public and generate interest in roses and their care. The cycle will begin again as we look forward to 2002 and the challenges it presents.

During my term as President, I've had the opportunity to meet many members and friends of the Society. Each person, with a unique and interesting story, whether on rose culture or life in general has enriched my life. We may have met at one of the various rose shows or horticultural events CRS attended. Perhaps we competed against each other for a ribbon at a show. Spreading and sharing the love of roses has been an enjoyable task.

One such person I was fortunate to meet was Dr. Felicitas Svejda who is known worldwide for the creation of the Explorer roses. The CRS is truly honoured to have her as our newest Patron.

My days as President are coming to an end. I have so many people to thank. It's difficult to list all the names in such a short space. The Board, Directors, Committee Members and most of all, you the members. You believe in this Society and are willing to make it better as each year goes by. Your support and loyalty mean so very much.

Thank you for the opportunity of having served as your President. Please extend your continued support to my successor.

Respectfully Submitted,

Elizabeth Schleicher

**THE CANADIAN ROSE SOCIETY  
STATEMENT OF OPERATIONS AND SURPLUS  
FOR THE YEAR ENDED DECEMBER 31, 2001**

REVENUES	2001	2000
Advertising & Subscriptions	\$4302	\$2,725
Donations	1,956	3,945
Fundraisers	10,154	8,705
Interest Income	1,848	1,966
Memberships	<u>15,392</u>	<u>7,819</u>
	<u>33,652</u>	<u>25,160</u>
EXPENSES		
Audit	826	750
Events	564	970
Fundraiser Costs	4,888	7,397
Honorarium	1,500	1,500
Office and General	3,121	3,535
Publishing	<u>24,158</u>	<u>21,737</u>
	<u>35,057</u>	<u>35,889</u>
EXCESS OF EXPENSES)		
OVER REVENUE	<u>(1,401)</u>	<u>(10,729)</u>

**STATEMENT OF CHANGES IN NET ASSETS  
YEAR ENDED DECEMBER 31, 2001**

	Restricted for Goulding Lecture Series	Unrestricted	2001	2000
Balance, beginning of year	\$846	\$41,000	41,846	\$53,368
Excess of Expenses over Revenue	(714)	(1,401)	(2,115)	(11,522)
Balance, end of year	132	39,599	39,731	41,846

**SEE ACCOMPANYING NOTES**



NOTES TO FINANCIAL STATEMENTS  
YEAR ENDED DECEMBER 31, 2001

1. DESCRIPTION

The Canadian Rose Society is a Registered Charity within the meaning of The Income Tax Act (Canada) and is organized to promote the development, growth and display of roses.

2. SIGNIFICANT ACCOUNTING POLICIES

Revenue and expenses:

Revenue from advertising and subscriptions, donations, fundraisers and memberships is recorded when received. Interest income and expenses are recorded on an accrual basis.

Capital assets:

Capital assets are expensed in the year they are purchased.

3. TERM DEPOSIT

The term deposit was purchased on January 30, 2000 and matures on January 30, 2002 with interest at 1.2% per annum, payable annually.

4. COMPARATIVE FIGURES

Certain of the comparative figures have been reclassified to conform to the current year's presentation.

Toronto, Ontario  
February 15, 2002

Wayne Kinahan C.A.  
Auditor

**CANADIAN NATIONAL ROSE SHOW—2002  
THE YEAR OF THE ROSE 2002, A CELEBRATION OF  
ROSES**

**Hosted by the York Rose and Garden Society**

On June 28th and 29th the Canadian National Rose Show was hosted by York Rose and Garden Society held our Annual Rose Show at the Scarborough Town Centre. There were forty-seven beautiful entries in the National Trophy Classes set up on tables in the middle of the show area. It was a fitting setting for roses of all classes and cultivars.

There were seven hundred and forty-five entries including forty-four wonderful entries in the Design classes. Mary Mordy and Dorothea Thompson worked very hard to have as many good designers as possible enter and their work certainly showed in the results.

This was the third year of showing our roses at the at Scarborough Town Centre. Many thanks to Jim Houlston, Marketing Director, and the team at Scarborough Town Centre who worked behind the scenes to make our show the success it was. I also would like to thank the many volunteers who worked so hard and helped so much. We moved tables, set up signs, arranged classes, carried gallons and gallons of water, cleaned up messes and then at the end of the show we did it all again. We went home tired but very happy that everything turned out so well. A few things were forgotten or not properly carried out but as someone smarter than I said, "experience is the best teacher" and there is always next year.

Ruth Somerville, Show Chairman

*From Barbara Clarke, a past president of CRS and an "old pro" at Rose Shows: "Wow, what a show! What a weekend! What roses!!*

*From the editor: The roses this year have been simply phenomenal and while the heat of the previous week had sent a few of them into early oblivion, most were still looking at their best and at that wonderful stage described in the Guidelines for Judging Roses: "Most perfect phase of possible beauty".*

## 2002 Canadian Rose Annual



*George Pagowski, President CRS, presenting the Royal York Challenge Trophy to John Cockbain, Oshawa*



*And the Winning Entry, the Three **LIEBESZAUBER** Roses*

(Photos: Paul Graber)





## 2002 Canadian Rose Annual



*George Pagowski presenting the Hugh A Rose Trophy to Marilyn Mitchener for  
'MORDEN SUNRISE', a rose originating in Canada*



*John McLean being presented with the Paul B. Saunders Trophy  
for Five Hybrid Roses*

(Photos: Paul Graber)



## 2001 Canadian Rose Annual



*Paul graber Being Presented with the K.G. Laver Trophy*

(Photo: Paul Graber)



*And the Winning Entry—*  
**RISEING STAR,  
MISS FLIPPINS,  
PEACHES AND CREAM,  
GOLDEN BERYL(2),  
HOT TAMALE,  
BOOMERANG,  
PACESETTER,  
CHILD'S PLAY, REIKO,  
MINNIE PEARL,  
IRRESISTIBLE**

(Photo: Dennis Broughton)







**THIS AND THAT**

*Best Design in Show for the  
Donnellan Trophy  
won by Barbara Clarke*

(Photo: Paul Graber)



*Serious Business: Muriel Stafford, Audrey Meiklejohn, Anne Graber*

(Photo: Philip Webster)



## 2002 Canadian Rose Annual



*Some of the Hybrid Tea Class Winners*



*Prince of the Show*  
*Lynn Anderson*  
*won by John McLean*  
(Photos: Dennis Broughton)







*Marilynn Mitchener presenting Ruth Somerville, Show Chair, with the John McLean Trophy for Best Climbing Rose, **DON JUAN***



*Judges' Choice "Friends",  
a Satellite Design, won by  
Ellen Spencer,  
Huronion Rose Society*

(Photos: Dennis Broughton)







*The judges, Jim Anderson, Wendy Downing, Beryl Harris and student judge Avery Wagg, Odessa, hard at work*



*And some of the beautiful entries that were making them cogitate*



## CANADIAN ROSE SOCIETY NATIONAL TROPHY CLASSES

<b>Trophy</b>	<b>Variety</b>	<b>Winner</b>
<b>Royal York Challenge Trophy</b> (3 Specimen Hybrid Tea Blooms)	Liebeszauber	John Cockbain
<b>Paul B. Saunders Trophy</b> (5 Hybrid Tea Blooms)	Lady Mavis Pilkington, Lynn Anderson, Folklore, Warm Wishes (2)	John McLean
<b>P. L. Whytock Trophy</b> (3 different cultivars of Floribunda sprays)	Fred Loads , Iceberg, Nicole	Claire Finch
<b>The Harkness Cup</b> (3 stems or sprays of Climbing Roses)	Sympathy	Claire Finch
<b>Hugh A. Rose Trophy</b> (one stem or spray of any rose originating in Canada)	Morden Sunrise	Marilynn Mitchener
<b>Peter Mcdougall Challenge Trophy</b> (English Box of 6 Hybrid Tea or Grandiflora, 6 distinct cultivars)	The Lady, Paradise, The Ambassador, Warm Wishes, Tournament of Roses, Awareness	Cam Galli
<b>K. G. Laver Trophy</b> (12 specimen blooms of Miniatures)	Rising Star, Miss Flippins, Peaches and Cream, Hot Tamale, Golden Beryl (2) Boomerang, Pacesetter, Child's Play, Reiko, Minnie Pearl, Irresistible	Anne & Paul Graber

## YORK ROSE & GARDEN SOCIETY AWARDS

AWARD	VARIETY	WINNER
<b>Red Rose Tea Trophy Queen of the Show</b>	Liebeszauber	Marilynn Mitchener
<b>Joseph J. Barnicke Trophy Prince of the Show</b>	Lynn Anderson	John McLean
<b>Becky &amp; Jim Hilton Trophy Princess of the Show</b>	Paddy Stephens	Sandra Sakura
<b>Dave Money Trophy Best Floribunda</b>	Playgirl	John McLean
<b>Diana Jackson Trophy Best Grandiflora</b>	Tournament of Roses	Cam Galli
<b>John McLean Trophy Best Climbing Rose</b>	Don Juan	Ruth Somerville
<b>Pickering Nurseries Trophy Best Shrub</b>	Many Happy Returns, Mary Rose	Sandra Sakura
<b>Denis &amp; Joan Creighton Trophy Miniature Queen</b>	Little Artist	Cam Galli
<b>Lamrock's Little Roses Trophy Miniature Prince</b>	Seattle Scentsation	Paul Graber
<b>Lamrock's Little Roses Trophy Miniature Princess</b>	Dorolo	John McLean
<b>Directors' Trophy Best Rose— Novice</b>	Sexy Remy	Robin Paddley
<b>The Donnellan Trophy Best Design</b>	"This and That"	Barbara Clarke
<b>President's Trophy Best Horticultural</b>	Delphinium	Jack Forster

## SOME PEOPLE YOU WILL WANT TO KNOW

*These are articles by various people of whom you may not have heard before. The first, Trevor Nottle, has written us a long and fascinating story of how roses have travelled to his country, Australia, and to other parts of the world. (See his article on page 45.)*

*Malcolm Manners, like Trevor Nottle, we met in Charleston, South Carolina at the International Heritage Rose Conference. He studies and writes/talks about genetic testing of roses. (See his article on page 62.)*

*Charles Decker you may recognize as the long-time contributor to The Clearing House from Alaska.*

*Chris Dennis is a new member from Newfoundland and one of our few members there.*

*Ron Bishop is the current Editor of our sister publication, the Canadian Rosarian, who improves the publication with every issue and who is a long-time member and a winning contributor to shows at the Hamilton Burlington Rose Society and to National Shows—Editor*

### TREVOR NOTTLE

I am Principal of the Centre for Horticulture at Urrbrae in Adelaide, South Australia. This place is the state centre for tertiary training in applied technology for horticulture — parks and gardens, turf, production horticulture, arboriculture, garden design, landscape construction; aboriginal land management, environmental management (pollution control and management) and natural resources (national parks management, reforestation, erosion control, wetlands management etc).

I am a garden historian who is researching Mediterranean influences on our landscape for a Doctorate. I am also a garden writer, having published some nine books and numerous articles for popular magazines and learned journals. And I am reasonably well known on the international lecture circuit having spoken in recent years in the US (Charleston, South Carolina) Argentina, Uruguay, NZ, Cambridge, France, Greece and Italy, and I have lectured during two previous tours of the USA.

### MALCOLM M. MANNERS

Dr. Malcolm Manners is a Professor of Citrus and Environmental Horticulture at Florida Southern College, where he

teaches courses in general horticulture, water and weed management, tropical fruits, citrus pests and diseases, botany, plant taxonomy, and plant physiology.

Since 1984, he has managed Florida Southern College's rose mosaic virus heat therapy program, which cures roses of virus disease and makes the healthy propagating material available to the nursery industry. In conjunction with that program, he manages a collection of more than 300 rose varieties, in two campus gardens and a greenhouse.

He has been growing roses for about 19 years, mostly old garden rose types, but some modern roses as well. He serves as secretary and a trustee of the Heritage Rose Foundation and is past chairman of the American Rose Society's committees on rose registrations and rose classification. He is also active in the Central Florida Heritage Rose Society.

## **CHARLES DECKER**

Growing roses in Anchorage, Alaska is challenging—a USA Zone 4 toward the water and Zone 3 toward the mountains, with alternating freeze/thaw cycles in winter and dependent on snow cover for protection. The first frost varies each year, mostly from September 1st to October 12th.

My wife, Gladys, introduced me to roses in 1968-70, when she was president of the Alaska Rose Society. An order of hardy roses that we call "liners", first or second year roses on their own roots, was purchased by the Society from Beaverlodge Nursery in Alberta. My wife had to go to US Customs to water the roses until they passed quarantine. Cheechakos like us, i.e. Alaska greenhorns, had no conception of height, width or growth habit. I made a three-row terrace bed and planted our fifteen "sticks". Needless to say, I had to rearrange them a few years later.

We started a few pots of non-hardy roses and wintering them over in our back entry met with varying success. My house overhung the basement so I decided to make a root cellar setup using Styrofoam/plywood on the outer side and entrance. Later I added a sprinkler hose to the ceiling accessible through a basement window. The biggest drawback is that this is a crawl space. My space is twelve by twenty and over the years I have managed to accumulate three hundred and nineteen five-gallon pots of Hybrid Teas, Floribundas and other non-hardy varieties as well as ninety-three two-gallon pots of Miniatures. (Yes, I do have to stack them!!) I have about fifty hardy roses around my yard as well. You might say roses are an obsession but I also start about fifteen hundred



seedlings or flowers and vegetables and work full-time as a pharmacist.

One of the plus sides to Alaska gardening is our short season and lots of light (nineteen and a half hours on the longest day), but rather labour intensive from April to October. You are likely to find me in the garden at midnight! Winter is spent on other interests and I make sure to get plenty of physical exercise by working out and swimming to keep myself in shape for my obsession with roses.

My schedule for roses is to pull them out of storage April 1st, cutting off all long shoots and adding extra soil to the pots if needed. They are then moved to the shed and greenhouse, both heated to keep them above freezing where the regimen of watering and spraying for disease and insects begins. I have put twin-walled polycarbonate on both units; it is much better than fibreglass. After growth starts, the fertilizing program begins with Mills Easy Feed (high nitrogen). Then I switch to Miracle-Gro, with three applications of Epsom Salts—none later than August 10th. The last week of April, the pots are set on my deck which is twenty-seven by twenty-seven feet and actually the carport roof. A southwest exposure and black deck floor covering help with warmth. The roses can withstand light frosts and seem to come into bloom about June 15th, about the same time as the hardy roses. I keep about sixty pots in my backyard, especially the more mildew-prone ones. The Miniatures are set on the railing and some at our front entrance. The watering program is by hand. I keep four thirty-five gallon reuse containers on the deck with a 50/50 dilution of fertilizer which is applied after watering. The Miniatures are watered every four or five days and the larger pots every six or seven days—all dependent on weather. Our summer temperatures run from the 40's on damp days to 75° Fahrenheit on sunny days.

Our pests are aphids, spider mites and mildew which I deal with accordingly. The fourteen day sprayings of Bannermaxx, Funginex, Avid and Orthene take care of the small pests but we also have moose!! Our area has a thousand or more, because of the mild winters of the last few years. Luckily they visit mainly at tulip and harvest times. They have not done much damage to the roses yet mainly eating rose hips and pruning birch, mountain ash, fruit trees and eating the kale crops. They do like tulips, though!!

Early in my rose-growing someone gave me some fibre pots and I planted the roses, using fish fertilizer. Several days later, I noticed the roses scattered on the deck with a few pieces of fibre. I guess the neighbourhood cats or possibly lynx had a ball. Consequently no more fibre pots!!



Last year, the Alaska Rose Society took on a project of planting hardy roses in the City's Centennial Rose Garden with an approximate capacity of four hundred roses, surrounded by a Rugosa hedge. There was a central fountain filled with soil and four entrances of donated wooden arches. Jackson and Perkins donated one hundred and fifty Hybrid Teas and other roses. We were allowed to plant four beds plus the fountain and around its perimeter and the arches. We used about fifty Parkland and Explorer roses and a few other hardy roses. We used the more trailing/mounding roses in the fountain: 'Sea Foam', 'The Fairy' and a few Town and Country roses all on their own roots. The arches were each planted with 'Polsjärman' and two other climbers. In the fall, the fountain planting and the Hybrid Teas were covered with a foot of potting soil (great deal at Kmart). All the beds were bordered by annuals. The city gardeners seemed pleased and we are anxious to see the winter survival rate. The City of Anchorage does an excellent job with their landscaping with flowers—complete with lamppost baskets à la Victoria.

The Alaska Rose Society feels that the general public needs to be more aware of the northern garden techniques and they have been on the lecture circuit for the last five years promoting own-root roses as having the best chance of survival in our climate. We hold an annual sale of own-root roses, many from members' gardens. We also ordered several hundred cuttings to hand out at the workshops for the groups like Master Gardeners and Community Schools. The Canadian Explorer and Parkland roses have adapted really well to our climate and are a welcome addition to our standards like 'Hansa', 'Thérèse Bugnet', 'Prairie Dawn' and the Scotch roses.

### **CHRIS DENNIS & WANDA GUSHUE**

We live in Western Newfoundland where I have been growing roses for many years. However, Wanda is a beginner. My earliest recollection of roses is the rather large clump of pink roses that filled the air with their scent in mid July. That is fifty years ago. Those roses ('Cinnamon Rose') were brought to Newfoundland by my great grandparents in the late 1800's. They have been handed down through the family ever since. I still have one. I started to collect roses from abandoned communities about twenty years ago. I have been able to identify most: 'Cinnamon Rose', 'Blanc Double de Coubert', 'Harison's Yellow', are included in this group.

A few years ago I learned about Bob Osborne and Corn Hill Nurseries in New Brunswick. I have purchased quite a few



*Chris Dennis's Newfoundland Garden*  
**GRAHAM THOMAS**



**DAVID THOMPSON & JOHN CABOT**





# 2000 Canadian Rose Annual



*Chris and Dennis's House and Garden – Look for SIMON FRASER,  
LINDA CAMPBELL, HENRY KELSEY, GEORGE VANCOUVER, GRAHAM THOMAS*



*Wanda Gushue hard at work in the garden*

(Photos: Chris Dennis)



roses from him. Last summer we had about sixty varieties blooming. Of this number twenty are Explorer roses. We are still looking for 'Quadra'.

I grow mostly Shrubs and some Old Roses. Growing happily in my garden at the moment are: 'John Cabot', 'David Thompson', 'Simon Fraser', 'Henry Kelsey', 'George Vancouver', 'Lambert Closse', 'Hope for Humanity', all Explorer Roses; 'Graham Thomas', 'Heritage', both Austins: 'Lilli Marlene' and 'Scentimental', Floribundas; 'Stanwell Perpetual', 'Grootendorst Supreme' and 'F. J. Grootendorst', Thérèse Bugnet, 'Sea Foam', all Shrubs and 'Peace' and 'Whisky Mac' both Hybrid Teas.

We also grow a rose called 'Survivor', apparently not well-known in other parts of Canada. The following description is taken from Corn Hill's catalogue: "'Survivor' Zone 3 -Ottawa. 1975 (Kordesii hybrid?) Round, somewhat open bush growing to perhaps 2m. No black spot or mildew and very hardy. Flowers are semi-double, deep red and appear until very late in the season. (FR-2). Many hips appear after flowers. Another selection from the Ottawa breeding program that was discarded, but which we have maintained. Prune in spring to keep bush compact. Its hardiness makes it a good choice for those looking for a hardy, healthy, and vigorous red rose that flowers over a long period. Grown with the permission of Agriculture Canada." We get lots of snow so there is good winter protection and we do not provide anything else.

Wanda and I are both teachers and spend most of our summers tending our roses. Our children are grown, two in Ontario and one in Quebec.

## **RON AND BARBARA BISHOP**

Barbara and I have been married forty-seven years this summer. We have four married children, ten grandchildren and one great-grandchild.

I am an electrician by trade. Because of an accident to my back in December, 1983, I had to leave work in March of 1988, as a Superintendent over one hundred and fifty men. An operation on my back in February 1989 led to unexpected retirement. When people ask me if I work I tell them I officially retired two years ago but have not worked since 1988.

We have had at least one rosebush at every house we have lived in. About thirty-six years ago we lived in a rented house where we planted twenty-four bushes, mostly Hybrid Teas. Our landlord asked us to move because he wanted the house for his daughter and her new husband. That is when we purchased our first

home. We went to the nursery where we had purchased the roses and obtained containers big enough to hold the roses while we moved. The roses were in their pots for two months, well watered, while we added good earth and generally improved the planting area.

Three and a half years later we needed a bigger house for a growing family. Because we moved just before Christmas the roses had to be left behind. The next challenge was bringing in truck loads of soil to break up the red clay so we could start a new rose garden.

We joined the Hamilton and Burlington Rose Society in 1983 and that year entered our first Rose Show. This was the first time we had seen Miniature Roses and you might say, it was love at first sight. We now have one hundred and fifty of them. I joined the Board of the Hamilton and Burlington in 1990 taking on the job of looking after the trophies and awards, of course, with the help of Barbara. Since then I have held every position on the Board including editor of the Society's newsletter, "*Rose Leaves*". At present I am a director of the Society as well as being on the Board of the Canadian Rose Society and the editor of the *Canadian Rosarian*.

About seven years ago the City of Hamilton built a four lane highway behind us, taking thirty feet of our property to install a hill and a seven foot concrete wall. Before they started we moved all our Miniature Roses to our front yard. The larger roses were planted where the patio had been. Until two years ago we had a nursery in our basement where we grew Miniatures, perennials, annuals and vegetables for our garden. It has been very difficult for us to keep our garden going but when we go out in the early morning and smell all the different fragrances, it is all worth it.



## CHINOISERIE, ORIENTALISM, EXOTICISM, AND SHARAWADGI—THE ORIENT TRADE AND THE ROSE.

By Trevor Nottle, Australia

For an introduction to Trevor see the article People page 39

*I was surprised suddenly to see a real fairy-land, for His Majesty had ordered a Chinese pavilion to be built, the most beautiful ever to be seen. The body-guard was dressed in Chinese clothes, and two of His Majesty's aides-de-camp as Mandarins of military rank..... If the exterior was a surprise the interior was no less astonishing. There was a main room decorated Indian style with four big porcelain vases, one in each corner. In the other rooms there were old Japanese lacquer cabinets and sofas covered in Indian fabrics, all in the finest taste. There was a bed chamber with Indian fabric on the walls and bed, and the walls were decorated with the finest porcelain, pagodas, vases and birds. A chest of drawers in old Japanese lacquer was filled with different curios, among them Chinese embroideries..... When everything had been admired His Majesty commanded a Chinese Ballet.*

Queen Louisa Ulrika of Sweden July 1753  
to her mother, Sophia Dorothea, Empress of Prussia

Fascination with things from the East has been a strong influence of western civilisation since the ancient Greeks first developed a taste for pepper and spices that were traded by nomadic Scythian merchants. Scythian territory stood between the empire of China and the trading world of the ancient Greeks. The two worlds came together around the Black Sea where Scythian merchants met in the market places of sea-faring Greek colonists. Trade caravans came from Bactria and beyond in the east, and merchant ships sailed in from Crete, Greece and the Hellenic colonies of southern Italy. An exchange of spices for gold developed and thus the northern Silk Road was established.

By the time of Alexander the Great (of Macedon) the trade had expanded to include ivory, ever more spices, the occasional peacock or parrot, and silk, both raw and manufactured. His conquest of the Achaemenid Persian empire of Darius (331 B.C.) opened the way for direct trade with India, a trade which flourished until the Alexandrine empire collapsed. One door closes and another opens, no less so in the case of luxury goods; so while the northern Silk Road was closed, a southern route across the Indian Ocean and up the Red Sea developed with the Romans displacing the Greeks as the principal traders. The demand for luxury goods continued to grow though the mix of goods changed; the Romans

preferring silk above spices, pepper, cinnamon and ginger, and even importing from time to time live animals for the arena.

With changes in the balances of power in both the Roman world and Asia, cities such as Alexandria, Patna, Antioch, Samarkand, Damascus, Baghdad and Palmyra rose and fell as centres of trade leaving Constantinople ascendant at the European end of the northern Silk Road. Until the rise of Islam in the 7<sup>th</sup> century the trade continued vigorously. Then the flow of Oriental goods to Europe was virtually cut and diverted to Islamic markets whence a trickle was on-sold to European merchants, mainly Venetians and Genoese.

The march of history, however capricious, did not diminish the attraction of luxury goods from the east. Despite all the mythology of one legged people who used their feet to shelter from the sun, and tales of sea monsters, and an utter reliance on guess work to fit disparate geographical facts into some sort of comprehensible *mappa mundi*, contact with the east was furthered by the Polo brothers and a number of Papal emissaries to the Mongol court.

Still there was great confusion between the states of India, China, Tartary, Japan and Taprobane (Sri Lanka), confusion that was scarcely resolved by the discovery of a way around Africa by Bartholemew Diaz (1488) and the discovery of the West Indies by Christopher Columbus (1492). The discoveries, spurred by expectations of great luxury trade wealth and validated by Papal blessings, heightened interest in all things Oriental. Even the discovery of a way around South America and across the Pacific to the Philippines by Ferdinand Magellan in 1519 served to heighten the intense rivalry for the luxury trade but did little to establish any sense of relationship between geographical reality and conceptual confusion. The English, Dutch, Swedes, Danes, Spanish, Portuguese, and French all vied for a toehold at one of the great Asian trading ports, or sought to establish protected trade posts where they were banned from free association with local populations. As an example of the luxuries of Oriental trade take a cargo list of the bullion galleon *Madre de Dios*, captured by English buccaneers off the Canaries in 1592: .....*spices, drugges, silks, calicoes, quilts, carpets and colours &. The spices were pepper, cloves, maces, nutmegs, cinnamon, greene ginger; the drugs were Benjamin, frankincense, galingale, mirabolans, aloes, zocotrina, camphire; the silks, damasks, taffetas, sarcenets, altobassos, that is counterfeit cloth of gold, unwrought China silk, sleaved silk, white twisted silk....whereunto are added the pearle, muske, civet and amber-greece. The rest of the wares were many in number, but less*

*in value: elephants teeth, porcellan vessels of China, coco-nuts, hides (furs), ebenwood as black as jet, bedsteads of the same, cloth of the rindes of trees...*(Richard Hakluyt)<sup>1</sup> For our purpose of understanding the intense fascination (and confusion) about Oriental luxury wares we need to understand that this consignment had origins in India, China, the Spice Islands (Malacca, Indonesia), Japan, Sri Lanka, Malaya, Java, Sumatra and Thailand.

The Oriental trade continued apace throughout the 17<sup>th</sup> and 18<sup>th</sup> centuries with the same European rivals contesting for lucrative trade in Canton, Macao, Goa, Bombay, Madras, Shanghai, Calcutta, Deshima (Yokohama). American merchant adventurers entered the Oriental trade after a certain incident concerning high taxes on Oriental imports in the British colonies in America. Tea, like all other Oriental goods had to be purchased through Britain, and was very highly taxed. The major American ports were Boston, Salem, New York, Providence and Philadelphia. Ships from Salem usually travelled by the Cape of Good Hope while those from the other ports frequented Cape Horn. Trading wherever they called, they picked up and on-sold whale oil, seal furs, and any other merchandisable stuff as they headed towards the Orient.

At first the Oriental trade was mostly in natural items that could be converted into luxury manufactures when they arrived in Europe, e.g. the base ingredients of perfumes, aphrodisiacs, jewels, spices and raw silk. As well there were items of curiosity, objects of virtue, shells, ostrich eggs, crystals, rock specimens, rhino horns, fossils, small carvings, small antiquities, porcelains, coral etc. These were destined for the curio cabinets of Royalty and princely prelates. By the 18<sup>th</sup> century the fashion for such things had been replaced by a much stronger demand for, and trade in porcelain and textiles, ceramics and lacquer wares, and hand-painted wallpapers. And it was by these objects that the great Oriental fascination spread across the landed aristocratic and wealthy merchant middle classes. A confusion of terms for the waves of Oriental fashions over the space of 100 years introduced *Chinoiserie*, *orientalism*, *exoticisme*, *japonnaise*, *indienne*, *hindu* and *sharawadgi* to our vocabulary. Some have faded from use but others remain and are used particularly by landscape historians and interior designers with an historical bent.

Of special interest to the purpose of this article is the depiction of flowers, particularly roses, on the porcelain and textile items that made up the largest portion of the trade. From the tens of thousands of pieces of blue and white porcelain tableware that were made for export to Europe and the west, and from the multi-coloured decorative pieces of Ch'ien Lung and *famille rose*, and

from the acres of woven silk and miles of printed calico we were introduced to a new and fantastic world of ho-ho birds, dragons, the phoenix, pagodas, moon bridges, plum blossoms, azaleas, lilies, orchids and 'roses'. With no knowledge of Chinese or Indian stylistic conventions, and very little knowledge of the natural history of the Orient it was difficult to differentiate between myth and reality in the animal or floral kingdoms.

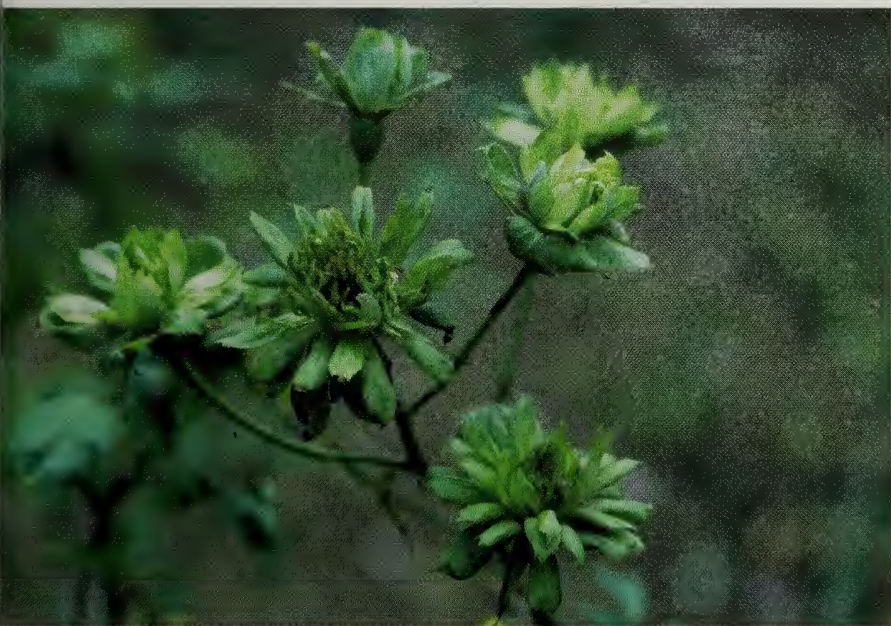
Kings and aristocrats built *Chinoiserie* palaces and gilded garden pavilions and filled their interiors with japanned and lacquered furniture. Tables groaned under Chinese export ware porcelain dinner services; porcelain plates, pagodas and vases filled exotic salons. Among the lower orders of society the craze for *Chinoiserie* went from strength to strength too until gardeners began to demand the plants they saw on textiles, ceramics and paintings. Meeting this demand was fraught with seemingly insurmountable problems, not the least of which was getting out of the European cantons, 'factories' and trading stations and into the cities and towns of China and Japan to see gardens and nurseries and to buy plants.

The severe travel limitations on Europeans in such situations merely served to heighten the mystery of already unknown plants and increase the demand that they be introduced to Europe. As in the case of Oriental curios the first interest in these plants came from Royalty and a few interested aristocrats, who, themselves being just as unknowing as any of their countrymen demanded the blue roses, yellow roses and green roses they saw on scraps of silken cloth and on pieces of porcelain. Eager-to-please diplomats, sea captains and their patrons in turn went to middlemen to obtain such rarities to enhance the glory of distant sovereigns. This interest was spurred by the few plants that had already been brought out of China by merchants, missionaries and diplomats who managed to smuggle themselves out of the foreign cantons to buy cultivated plants, among other things, in the markets. Among the plants haphazardly introduced by private enthusiasts were four roses: 'Slater's Crimson China' (1792), 'Parson's Pink China' (1793), 'Hume's Blush Tea-scented China' (1809) brought out for Sir Abraham Hume, and 'Parks Yellow Tea-scented China' (1823) brought out by John Damper Parks. Sir Joseph Banks sent William Kerr to Canton in 1803 as a private collector to indulge his taste for new and rare plants. So it came about that Lady Banks roses (1812) and other horticultural treasures from China and Japan ever so slowly made their way from the Orient to the Occident. The story can be read in detail in several books—Flowers in History<sup>2</sup>, Three Years Wandering in the Northern





**SLATER'S CRIMSON CHINA**  
**ROSA CHINENSIS SEMPERFLORENS**



**ROSA CHINENSIS VIRIDIFLORA**

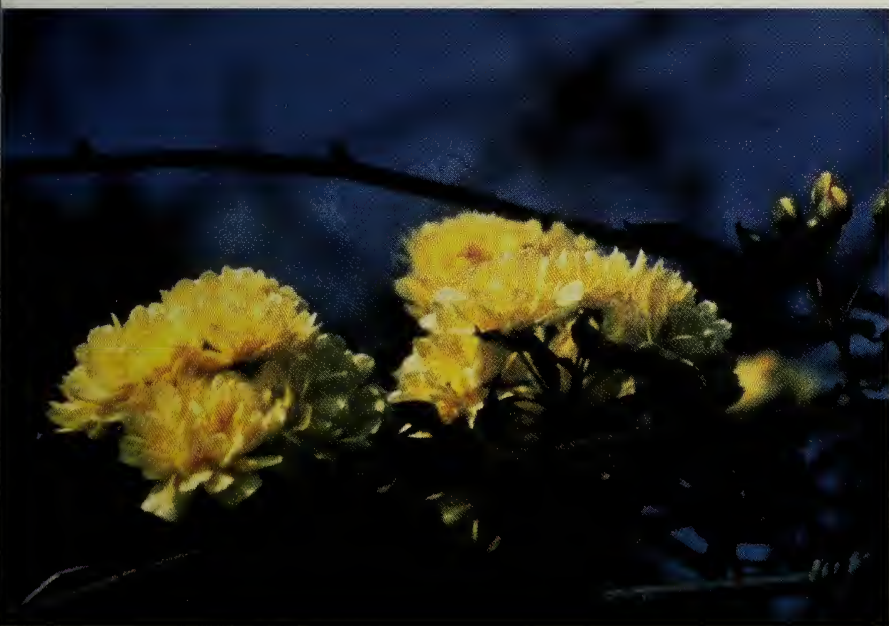
(Photos: CRS Slide Library from Bermuda)







**ROSA BANKSIAE BANKSIAE**

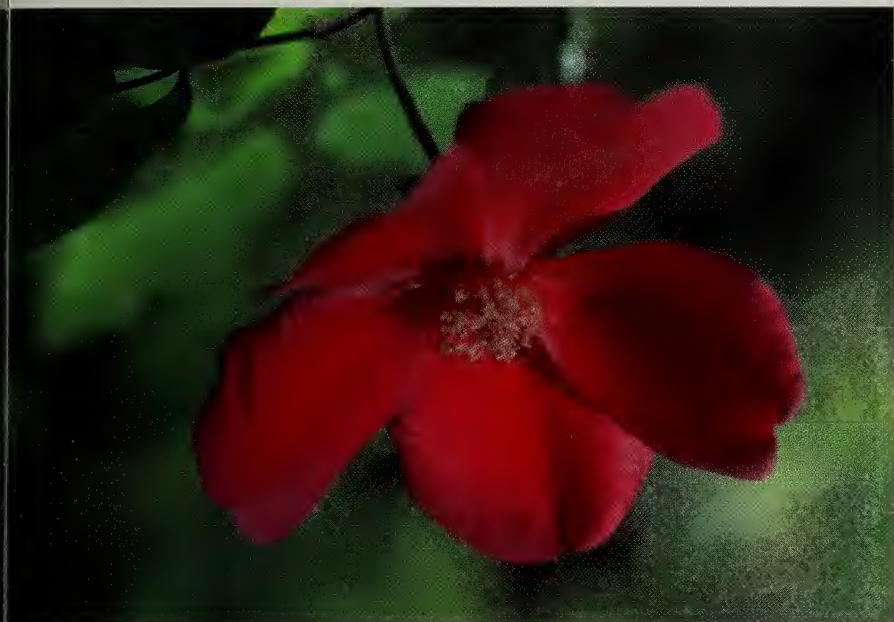


**ROSA BANKSIAE LUTEA**

(Photos: CRS Slide Library from Bermuda)



## 2001 Canadian Rose Annual



**SANGUINEA**



**LA VÉSUYE**

(Photos: CRS Slide Library from Bermuda)







CÉCILE BRUNNER



**MEMORIAM HT**

*Bob Keith's Favourite Rose,  
still available from  
Pickering Nurseries*

(Photos: CRS Slide Library)





Provinces of China<sup>3</sup>, The Story of the Royal Horticultural Society 1804 - 1968<sup>4</sup>, A History of British Gardening<sup>5</sup> and A Heritage of Roses<sup>6</sup>.

What is significant to us out of all this background is the role played by merchant adventurers from the East Coast United States and from Australia. Once the trade barriers imposed by the British on its American colonists were lifted after the Treaty of Paris in 1783 a precedent was set for free trade, not only for the brand new United States but also for other countries, even Britain. The intensity of competition between the rival British East India Company, the Nederlands Oost-Indië Compagnie and the Compagnie Française des Indes could not be matched by the privateers but they benefited nonetheless by the growing strength of free trade as a commercial ideal. When the Opium Wars were concluded by the Treaty of Nanking in 1842 and the Treaty of Tientsin in 1858, both Britain and France were able to force significant trading concessions from China.

Prominent among those standing ready for the doors to China to open was the Royal Horticultural Society and their agent Robert Fortune. Armed with instructions from the RHS Chinese Committee and supplied with information by John Reeves, a student of Chinese natural history who had lived in China, Fortune arrived early in 1843 ready to search out 'hardy plants (that) are of the first importance to the Society'. High on the list were 'plants producing *very* handsome flowers'. By the time he returned to England in 1846 plants he had despatched earlier, by Wardian cases, were already established and flowering.

Now the history of the development of Tea roses in Europe is well-documented, especially in French catalogues, society publications and magazines such as the Revue Horticole. So it is as well not to tread again such a well-worn furrow except to draw grateful attention to the work of Brent Dickerson<sup>7</sup> in compiling, translating and collating the vast mass of 19<sup>th</sup> century European rose literature that has given us all access to previously inaccessible material.

Instead I want to draw attention to some areas of research that need attention in Australia and the United States.

Just as the British and French were receiving roses and other plants from opportunistic merchants, missionaries and diplomats before Chinese trade barriers came down in 1843, there must also have been many American maritime free-traders who had similar opportunities as they sailed to Chinese ports to trade and refit. It is not so hard to imagine a sharp-minded 'Yankee' or Southern trader taking the opportunity to bring home something

exotic for his mother, wife or sweetheart, maybe a length of rich silk, maybe a pair of tall blue and white vases, maybe carved ivory beads—or just maybe a plant in a pot? A tree peony, a wisteria, a rose? Who knows? Australia had relatively few such maritime adventurer traders<sup>8</sup>. Most prominent were John MacArthur (1766-1834) and Alexander McLeay (1767-1848), who operated rival trading vessels between Australia and China, and points in between. Both were very successful; MacArthur operating a large agriculture based export and trading business from his properties Camden Park and Elizabeth Farm. M. McLeay based his fortune on commerce and built Elizabeth Bay House in Sydney with the profits of his ventures. Both men are also known to have imported direct from China many plants for their gardens via their shipping agents and trading fleets. Detailed lists survive that have been used as the basis of exhibitions that set out to create an understanding of what such gardens would have looked like. Surviving plant lists for all three gardens includes some roses: *R. bracteata*, *R. Noisette*, *R. banksiae*<sup>8</sup>.

It should be remembered that the Chinese nursery industry was very well organized and had a skilled workforce. They understood all kinds of grafting and layering, and had skills in forcing and withholding growth in order to advance or delay flowering times to meet the considerable demands for traditional flowers for religious ceremonies and auspicious events such as New Year. Robert Fortune discovered the extent of the industry: when he tried to buy blue tree peonies in a southern city flower shop he found the plants came, potted and ready to bloom, from nurseries hundreds of miles to the north. He also came face to face with the willingness with which Chinese traders accepted and met the demands of foreigners for 'rare' plants. The development of garden plants in China is also demonstrated by the hundreds of hybrids of fancy Chrysanthemum and Azaleas that were known in China hundreds of years before Fortune and others took them out of Chinese nurseries to Europe. Once the trade barriers were opened nursery grown plants could be bought and sent to Europe, Australia or America by anyone who saw them and could arrange carriage across the oceans. The loss rates were incredibly high until the adoption of the Wardian case (after 1842) allowed plants to be transported in relative safety from salt-water dousings, being eaten by rats and deck-housed livestock. There remained the problems of the cases being hurled overboard when deck space was needed, especially during rough weather, and of the glass panes being shattered by rough handling but despite these setbacks a growing number of plant exportations were successful.

The task now, for American garden historians, is to piece together what evidence there may be for the direct importation of plants, including roses, from China in the early and middle years of the 19<sup>th</sup> c. There is a rich heritage of civilised lifestyle, time and wealth to pursue individual interests as collectors and connoisseurs, and one strongly linked to Anglo-European culture. While the development and progress of *Chinoiserie* has been well documented from that perspective it remains an untapped source of inspiration for scholars in the United States. It is timely to pose what influence the Orient trade did have on the development of gardens in America. Were there American equivalents to Australia's Alexander McLeay? What were their names? Where did they trade? What houses did they build? What gardens did they make? What plants did they plant? There are certainly southern mansions built in the *Indienne*/Mogul style.<sup>9</sup> Do their gardens show any signs of *sharawadgi*?—that curious but delightful Oriental curlicue that rendered borders and shrubberies exotic with an unexpected kink here, there and everywhere. Were there, or are there any gardens in the Chinese style? Were gardens made *à la Japonnaise*? These are questions I cannot answer; maybe the answers already exist—if so the publications concerned have not come to my attention but there are several scholarly works that lead me to conclude that there is much research and writing yet to be done before the impact of *Chinoiserie* on American gardens can be evaluated.

It is tantalizing to see hand-painted Chinese wall papers in old American mansions. It is equally tantalizing to discover such homes decorated with fine Chinese export porcelain suites—garnitures of vases, plates, bowls arranged with formal taste in the 18<sup>th</sup> c. European manner. I recall Chippendale's Chinese patterns were copied in chairs and bookcases by American craftsmen. Surely someone in the same era was inspired to recreate a Chinese bridge, a pagoda or plant a weeping willow, or a China rose?

Ann Leighton<sup>10</sup> gives an enticing oversight of roses of the early 19<sup>th</sup> c. including reference to the breeding work near Charleston of John Champneys that resulted in 'Champneys' Pink Cluster', the forerunner of the Noisette race. Of particular note is her comment that the four stud Chinas were grown in Charleston at that time. Bernard M'Mahon<sup>11</sup> of Philadelphia lists several Chinese roses, commenting they are all tender, and describes one as the 'Otaheite Rose' suggesting a link with Hawaii, perhaps a resting place for plants coming across the Pacific and around Cape Horn? Or maybe a hint of roses being spread around Polynesia, Melanesia and Micronesia by the sailing missionaries of the Melanesian Mission<sup>12</sup> based in what became New Zealand<sup>13</sup> from around the

1820's? Also of interest is Robert Buist, a rose breeder and nurseryman who took over M'Mahon's Philadelphia nursery. He wrote two books pertinent to this subject: The American Flower Garden Directory of 1832, and The Rose Manual<sup>14</sup> of 1844. In The American Flower Garden Directory Buist lists of 27 Hybrid Chinese roses (\* see Appendix 1), 36 Bengal Chinese Ever-blooming roses, 24 *Rosa odorata* or Tea Roses, and 25 Noisette roses. Leighton reflects on how very few of these roses may now be found (in 1987) except for a few relict survivors in Bermuda. On this point The Bermuda Rose Society in its excellent publication Roses in Bermuda<sup>15</sup> alluded to the strong links between that island and Carolina, Baltimore and the maritime cities of what is now the east coast of the United States. Research in Bermuda shows direct importations of roses and other plants from the American mainland was established early but also suggests direct importation from China was a definite possibility. The entrepreneurial planters of the Sea Islands, coastal Georgia, the Carolinas and tidewater Maryland would have had ample opportunity to bring plants on their sloops and clippers from nearby Bermuda or far away China. One wonders whether any of the Gullah people (Afro-American descendants of slaves) who still live in the region have treasured any of these plants, especially roses?

Hazel Le Rougetel's<sup>16</sup> excellent summary of early developments in the east coast region of the USA makes reference to the Bermuda mystery roses, Chinas and Teas, but its focus is largely on present journeys and living personalities so there is ample room for further research. Any historian who is a follower of the French social historian, Fernand Braudel, could have a field day uncovering the links between trade, commerce, diplomatic history, garden history and domestic history associated with plants and the Orient trade. Gwen Fagan<sup>17</sup> of Cape Town has undertaken research of this kind to uncover the background (and sometimes the identity) of mystery roses of Cape Province. She has produced a work of scholarship and beauty that sets the standard for all old rose research. In relation to this paper Mrs Fagan clearly establishes the links between the Orient trade and the transfer of roses between Europe, Cape Province and China. It is of note that the trade was two-way with intermediate stops at Cape Town, Mauritius, Reunion, Jokjakarta, Singapore, Shanghai, Canton—all ports to which merchant adventurers set course.

Australia, settled on the southeast coast very late in the 18<sup>th</sup> C, was perhaps the poorer for developing at a time when 19<sup>th</sup> c. governments were reining in free trade with evermore legislative and taxation controls. (Trade was only 'free' within the boundaries

of Empire—and mostly the profits went one way, to Britain.) The Orient trade was less influential in Australia as a result of regulation of trade and emigration and focussed, once again on high value luxury goods, especially silks and porcelain. Though we know of Alexander McLeay's plant imports, they seem to be an exception, later importations from the Orient being dominated by nurserymen and by extremely wealthy travellers who had their own steam yachts to carry their booty home. Hence most, if not all, of the China and Tea roses in Australia were brought by entirely conventional means to our shores. There are mysteries enough, but they are 'lost and found' European roses rather than real mysteries. Identification is, therefore, somewhat less problematic than in countries where gardening has a longer history. Even so we should not discount entirely other confusing factors such as the efforts of local breeders and local sports. Evidence for the possibility of local rose breeding is found in The Garden and the Field for December 1883 "*How much more valuable would a rose raised here (in South Australia) be in France than in England one can easily imagine. We want roses as hardy as the banksia...as floriferous as the old never-to-be-discarded monthly...with the grace and elegance of the Teas and Noisettes, with all the depth and richness of colouring of the Hybrid Perpetuals...above all we want hardy Roses and Roses on their own roots. We want all these, and we can supply them if we set about it...*"<sup>18</sup>

'Dr Cazeneuve' is one real local mystery that was found at 'Anlaby', a squatter's sheep run that had a strong gardening tradition in its early 20<sup>th</sup> c. heyday. Heritage Rose members in Australia have made research projects on old roses; three in particular stand out as significant: Rookwood Cemetery<sup>19</sup> in Sydney, Melbourne General Cemetery<sup>20</sup> in Melbourne (two great necropolis's in the great 19<sup>th</sup> c. tradition) and at St James Church<sup>21</sup> at Blakiston in the Adelaide Hills. Prominent among these has been the number of Teas and Chinas discovered. Individual discoveries have been recorded in all the oldest long settled areas from New South Wales, van Diemen's Land (Tasmania), Victoria, South Australia and Western Australia. Typical of these have been 'Mons. Tillier', 'Isobella Sprunt', 'General Schablikine', 'Général Galliéni', 'Souvenir d'un Ami', 'Safrano', 'Mutabilis', 'Mme Hoste', 'Rubens', 'Perle des Jardins', 'Duchesse de Brabant', 'Cramoisi Supérieur', 'Slater's Crimson China', 'Old Blush', 'Le Vésuve', 'Jean Ducher' and 'Souvenir de Mme Léonie Viennot'. The work continues with Pat Toolan's Churchill Scholarship to study old rose conservation in the USA and Europe during 2001.

As ever, identification has proven to be problematic. Two



simple examples will demonstrate the challenges of identification of old roses. Note that I do not say 'correct' identification, for all such efforts can only ever be labelled correct with some conservative and sometimes considerable qualification.

Most of our efforts at identification come at some point to rely on visual representations to support their claim to validity. Thus we refer to whatever paintings, prints etc. we may be able to access to back up our views. While these images may well supply evidence of strong visual similarities there are some problems that lead to unreliable conclusions:

1. images distorted from reality to fit the page size.
2. images distorted to conform to some compositional aesthetic.
3. images presented from an impressionist or stylized stance e.g. the 'great' 19<sup>th</sup> c. illustrator Moon.
4. images that are technologically faulty e.g. too dark, too light, colour registers out of synch due to the imperfections of emerging 19<sup>th</sup> C colour printing technology.

Identification proven by direct line of descent appears more certain. Yet even here there are simple pitfalls that, repeated over 200 years can easily lead to error. Take, for example, a Tea rose of unknown provenance that has circulated variously as Octavius Weld and Octavus Weld. This rose is found at the headstone of the grave of the said Octavus W. On the same grave there are at least 3 other unknown Tea roses and at least one of them, a sprawling, compact bush with pale pink blooms, has been collected from the site and also named Octavus Weld. Comparisons between the first collected specimen—a tall almost climbing Tea, and the second demonstrate how in one generation of propagation two roses can acquire one name. Of course, the opposite is more frequently true—one rose acquires many names. 'Duchesse de Brabant' is an easy lesson here: it is also known colloquially in Australia as 'Bertha', 'Countess Bertha', 'Comtesse de Labarthe', 'Duchesse de Labarthe', 'Countess von Bertha' and 'Comtesse Ouwaroff'. With England, Scotland and Germany strongly represented among colonial nurserymen it is hardly surprising that so many variations occurred—even without considering the impact of largely illiterate nursery-hands and the complex confusions of multicultural hand-writing and shorthand abbreviations. Over many generations of propagation the probability for errors in the transmission of names must have been enormous.

Returning finally to the Orient itself as a source of garden plants, as opposed to plants collected from the wild, Peter Valder<sup>22</sup> has produced a powerful, and charming, study that clearly demonstrates the significant impact Chinese garden plants have had



on our gardens. He adds a few more roses to those known to Hazel Le Rougetel—she introduced ‘Topsy Imperial Concubine’, ‘Moutan’ or ‘Peony Rose’ and a small red *semperflorens* type rose, and his are all species variants selected for gardens, particularly numerous and varied clones of *Rosa chinensis*. Phillips and Rix show two Chinese ‘Tea Roses’ in Roses<sup>23</sup> but give no other detail. In The Quest for the Rose<sup>24</sup> they illustrate and briefly discuss roses they saw in China, some growing in cultivated gardens and some growing on the margins of fields—all appeared to be garden worthy variations and some apparently showed signs of being ‘natural’ hybrids e.g. ‘Boaxing Road Pink China’, ‘Dali Double Pink Multiflora Rambler’, ‘Lijiang Road Climber’, ‘Lijiang Double Yellow Rosa gigantea’, ‘10,000 Camellias Red Rose’. They conclude “*it is quite possible the four stud Chinas were bred not in Canton but somewhere in the hinterland....it also seems very likely that botanists and plant collectors could have discovered other garden roses had they not been restricted*”. And that raises the question: while officially restricted how many determined merchant adventurers did penetrate the barriers in disguise and get to local markets and nurseries? Further to that is the implication that the garden roses that did find their way Westward were obtained from city flower shops that got their supplies from the countryside; what were the chances of any collector, amateur or professional, of seeing or buying the whole range of plants a shop-keeper could call up from his suppliers?

The links between the Orient (i.e. China), trade and roses are still more recent than Phillips and Rix; for instance, the continuing introduction of Chinese roses at ‘Quarryhill’, a private botanic garden near Glen Ellen, Sonoma County in California. While the emphasis is on botanical specimens the plants do show strong signs of being garden worthy.

We may be well past the fanciful, if somewhat confused, notions of *Chinoiserie*, *Orientalism*, *Exoticisme* and even *sharawadgi* but it is clear that the impact of China, and Chinese roses on our gardens has been significant since the late 18<sup>th</sup> c. and continues to exert a strong influence today. Tracking that influence has barely begun—at best it is Anglo-centric and Euro-centric, with little published about how the Orient trade, *Chinoiserie*<sup>25</sup> and Chinese plants affected the developments of gardens, décor and architecture in colonial and post-colonial countries such as Australia and the United States.

<sup>1</sup> E. H. Schafer The Golden Peaches of Samarkand. *The Hakluyt Society*, Berkeley, 1963

<sup>2</sup> Peter Coats, Flowers in History *Weidenfield & Nicholson, London, 1970* ISBN 297-17964-0

<sup>3</sup> Robert Fortune, Three Years Wandering in the Provinces of Northern China, a Visit to the Tea, Silk and Cotton Countries with an Account of the Agriculture and Horticulture of the Chinese, New Plants etc. John Murray, London 1847

<sup>4</sup> H. R. Fletcher, The Story of the Royal Horticultural Society 1804-1968, Oxford University Press and the RHS, 1969. No ISBN

<sup>5</sup> Miles Hadfield, History of British Gardening, Hutchison & Co., London, 1960 ISBN 0-7195-3644-8

<sup>6</sup> Hazel Le Rougetel, A Heritage of Roses, Unwin, Hyman Ltd., London, 1988 ISBN 0-04-44026-0

<sup>7</sup> Brent Dickerson, The Old Rose Advisor, Timber Press, Portland, 1992 ISBN 0-88192-216-1

Also see Brent Dickerson, The Old Rose Adventurer, The Old Rose Informer and The Old Rose Breeder

Other merchant adventurer families: Archer family (van Diemen's Land), Jeffery family (van Diemen's Land and New South Wales), Dutton family (New South Wales and South Australia), Batman family (van Diemen's Land and Victoria) and others

<sup>8</sup> Jennifer Stackhouse, 1840's list reproduced in catalogue notes for exhibition, Elizabeth Bay House Gardens & Alexander Mcleay, Historic Houses Trust, Sydney, 1974

<sup>9</sup> see 'Longwood' an 'Oriental Villa' in Godey's Lady's Book, Philadelphia, 1861 also see Mac Griswold and Eleanor Weller, The Golden Age of American Gardens, Harry Abrams Inc., New York, 1988 ISBN 0-8109-3358-6

<sup>10</sup> Ann Leighton, American Gardens of the Nineteenth Century—For Comfort and Affluence, University of Massachusetts Press, Amherst, 1987 ISBN 0-87023-533-8 p/bk

<sup>11</sup> Bernard M'Mahon, (catalogue) Hardy Deciduous Trees and Shrubs, Philadelphia, 1806

<sup>12</sup> see Nancy Steen, The Charm of Old Roses, Herbert Jenkins, Auckland, 1966

<sup>13</sup> after the Treaty of Waitangi cede the islands to Britain, previously they had been settled by French, Scottish, British, American 'squatters' and whalers who traded guns for land and women with the Maori tribes.

<sup>14</sup> Robert Buist, The Rose Manual, Carey & Hart, Philadelphia, 1844 (facsimile pub. Earl M. Coleman, New York' 1978 ISBN 0-930576-10-1

<sup>15</sup> The Bermuda Rose Society, Roses in Bermuda, Hamilton, Bermuda, 1997 also see The Bermuda Rose Society, Old Garden Roses in Bermuda, 1984

<sup>16</sup> Hazel Le Rougetel, A Heritage of Roses, Unwin, Hyman Ltd., London, 1988 ISBN 0-04-44026-0

<sup>17</sup> Gwen Fagan, Roses at the Cape of Good Hope, Breestraat-Publikasies, Cape Town, 1988 ISBN 0-620-11032-5

<sup>18</sup> Albert Molynieux (ed.) The Garden and Field, December 1883 p102-103, Adelaide

<sup>19</sup> Stephanie Murphy, Esmond Jones, Gillian Batchen et al

<sup>20</sup> Robert Peace, Dana Morgan et al

<sup>21</sup> Trevor Nottle, June Morley, Pat Toolan et al

<sup>22</sup> Peter Valder, Garden Plants of China, Florilegium, Sydney, 1999

<sup>23</sup> Roger Phillips and Martyn Rix, *ROSES*, Pan Books Ltd., London, 1988

<sup>24</sup> Roger Phillips and Martyn Rix, The Quest for the Rose, BBC Books, London, 1993 ISBN 0-563-36442-4

<sup>25</sup> See Oliver Impey, Chinoiserie—the impact of Oriental Styles on Western Art and Decoration, Charles Scribner's sons, New York, 1977 ISBN 0-684-14679-7

## Appendix 1

Hybrid Chinese Roses listed by Buist in 1844—all possibilities for the many mystery roses of Charleston, the East Coast. The South, Bermuda and beyond.

A' Fleur Blanches	George the Fourth—River's
Blanchefleur, White Climbing	George the Fourth
Globe Unique	Georgia
Beauty Bouquet	Grillony
Becquet	Hybride Blanche
Belle Parabère	Helvetius
Belle Theresa	La Nayade
Bon Ginneure	L'Ingénue
Belle Marie	La Tourterelle Parni, Dove Rose
Brennus, St Brennus, Queen	Louis Philippe
Victoria Rose (of Charleston)	Lady Stuart
Blairii	Lord Nelson
Catel	Manteau
Celice	Palagi, Malton, Ne Plus Ultra
Chatelaine, Lanzezure	Petit Pierre
Cesonie	Princess
Cerisette	Prolifère
Coupe d'Hébé	Stadholder, Stadholder Sinensis
Coupe d'Amour	Sandeur Panaché, King of
Duc de Cases	Hybrids
D'Andigne	Tuscany, Tuscany Noisette
Délice de Flandres	Triomphe d'Angers
Egérie	Vandael
Emmeline	Velours, Violet Episcopal
Fulgens, Malton (in France)	Victor Hugo
Fabvier, Colonel Fabvier	Violet de Belgique
Fleurette	Watt's Celestial, Watt's
General Lamarque, Lamarque	Climbing China, Flora Perfecta,
of Luxembourg	or Rachel
	Wellington

## THE ALBAS

*By Peter Beales*

Having been in love with them from an early age, I feel it is now time for me to write something in favour of the Albas, disadvantaged because in the eyes of so many, they suffer from that terrible affliction of flowering for only a short time each summer. I am prompted to pen these words, having recently enjoyed an interesting conversation with a lady customer here at my Nursery who, even though she much preferred 'Maiden's Blush', an Alba, had bought instead a modern, soft pink, repeat-flowering shrub rose.

It may be that when I was much younger, subconsciously or even consciously formulating tastes and preferences, I too, would have gone for quantity instead of quality. I cannot remember that far back! What I now know is that, for me, few pleasures can surpass that first face-to-face sight each year of a perfect bloom of 'Maiden's Blush'. She is a rose I remember from my childhood and she would most certainly be my first choice were I allowed to take just one rose with me to solitary confinement on some far-off desert island.

It is the month of March and, from my window as I write, I can see daffodils in their thousands flexing their stems against an angry west wind. These, albeit gratifyingly well in advance of roses, also bloom once only each year; as do lilac, cherry and almost all of the other flowering shrubs. None of these is ever cold-shouldered simply because its blossoming is so fleeting.

To come back, more specifically, to that distinguished little group of roses the Albas – 'Alba' means white of course, but it is a collective name that is a little misleading. Some available today such as 'Maxima' and 'Semi-plena', are indeed pure white but most are actually varying shades of pink. To me, irrespective of their colour, given fair weather in which to bloom, they almost all border on the 'Great' and 'Small' 'Maiden's Blush' or 'Cuisse de Nympe', the French name by which this lovely rose is also known. Although muddled in the minds of their growers, there is little or no difference in the size of flower of either clone. Their main disparity is in their respective overall dimensions. The 'Great' form is capable of reaching heights of fifteen feet on walls, trellises or up into trees and eight feet or so as a free-standing shrub, while the 'Small' version seldom reaches more than four feet. In my travels around the world I have also come across considerable variation of colour amongst roses labelled as 'Maiden's Blush', some heavily blushed pink, some hardly blushing at all.



**KÖNIGIN  
VON DANEMARK**

(Photo: CRS Slide Library)



**TEMPLE MUSK ROSA MOSCHATA**

(Photos Malcolm Manners)







Quite apart from variations in colour within specific named Albas. I also believe that we have to accept that the true nomenclature of the majority of varieties of these most ancient of roses has also become confused. This was inevitable because of the range of interpretation of the wording of their descriptions from former times. In my opinion, it will now never be possible to be sure that any of our present day names in this group are those which were applied to them by their discoverers and introducers. Discoverers and introducers—deliberate and carefully chosen words for although several are attributed to specific rose breeders of the early 19<sup>th</sup> century I suspect that most are much more likely to be orphans and foundlings, more the result of selection from chance hybridization than from any deliberate man-assisted pollination.

The anonymous author of one of my favourite little books, "The Flower Garden" of 1839, refers to the Albas as having been "cultivated in gardens of Europe since time immemorial". He or she lists no fewer than 42 different cultivars of 'White Roses', as the Albas were then called. These were all collated from the catalogues of three of the most highly respected British Rose Nurseries of that time— Woods', Hooker's and Rivers'—and are classified by colour. An amazing fifteen varieties are described as being "pure white". 'Blanche de Belgique' and 'Princesse de Lamballe' are the only names I recognize amongst these. I grow the former and it complies with its description. The latter however, although seldom seen today, is usually described as 'blush'. Surprisingly, there is no mention of 'Maxima' which was most certainly around at that time. This said, one called 'Old Double White' could well have been the name of our present day 'Maxima', which, over the years, has also been known as 'Bonnie Prince Charlie's Rose', 'The Jacobite Rose', 'The Cheshire Rose' and 'The White Rose of York'. Another of today's roses conspicuous by the absence of its name, is 'Semi-plena'. This was almost certainly known at that time as 'Nivea'. A further ten Albas are listed in this book under the rather loose colour range of "Pink, Carmine and Rose". I recognize none under this heading but several have such evocative names as 'Fanny Sommerton' described as "pale, cupped and double", 'Belle Clementine', "mottled and double" and 'Belle Thérèse' "large, blush and cupped". A few pages on, no fewer than sixteen varieties are to be found listed under the heading "Blush, Lilac and Flesh". Notable among these are such present-day favourites as 'Celestial', recognizably described as "pale, half double and expanded", 'Queen of Denmark' surprisingly depicted as "pale" —today's clone is deep pink, at least mine is. 'Jeanne d'Arc' —"pale flesh"

and 'Félicité Parmentier'—"small and cupped" whereas the one I have today is flat and double. 'Maiden's Blush' is listed under this heading as 'Cuisse de Nymphe' perfectly characterized I believe as "large, expanded and double".

One wonders to where all the other roses of this little book have disappeared. Most modern specialists list no more than a dozen or so and Graham Stuart Thomas' "Rose Book" of 1994, lists just fifteen. "A Book About Roses", 1869, by Dean Reynolds Hole, first President of the Royal National Rose Society, to my constant pleasure, usually uses ten words where one or two would have done. His book is a classic and, in parts, very amusing. Reading between the lines, one senses he was clearly much more in love with the newer, remontant Bourbons and Hybrid Perpetuals of his era than he was with the once-bloomers. He does however, from time to time, mention a number of Albas with what can only be construed as a fair degree of affection: once as "Albion"—Albion being an ancient Latin name for England derived, according to some scholars, from the abundance of white roses that was found growing throughout the land in those far-off days. In another chapter he fondly recalls the roses from the early 1800's, as follows: "The white roses of my childhood have long left the garden in which they grew". Nothing has changed. He goes on, "I see the former sometimes by old farmhouses and in cottage plots, widely vigorous as a gypsy's hair".

Another old rose book which I love is William Paul's "The Rose Garden", first published in 1848. The 10<sup>th</sup> edition of 1903 lists just eight varieties of Albas. There were, no doubt, others but these were the only ones Paul considered worth listing. All are still grown today. By then though, competition by much longer-flowering Bourbons and Hybrid Perpetuals for places in the rose garden was much keener but they themselves were already giving way to those rising stars of the Twentieth Century, Hybrid Teas.

Observant walkers through the European countryside in late May and June each year will know that there is a wide range of different shades amongst the common Dog Roses. Pink is by far their predominant colour, but I also know of several pure white examples happily growing wild here in my native Norfolk. I mention this only as an aside as there can be little doubt that the original Alba owes much of its genealogy to *Rosa canina*, the 'Dog Rose', as evidenced by the grey-green healthy foliage and shrubby habit of growth of its garden-worthy descendants. *Rosa damascena* is usually ascribed as the other likely parent, clearly a potent mix of genes in the bringing forth of fragrance. To me, no other family of roses has the same refinement and pervasiveness of perfume as the

Albas. Surely, however fleeting their flowers, on the strength of perfume alone, the roses of this group which have survived to come down to us from centuries past are well worth space in any modern garden.

Although the majority of Albas lean heavily towards the Dog Rose in habit of growth and foliage, one or two have distinct Damask similarities, to the point where their classification is much less straightforward. Two superb examples of these are 'Mme Plantier' introduced in 1835 and 'Mme Legras de St Germain' introduced in 1846. Both are pure white and make extremely useful, garden-worthy shrubs or small wall plants. A third rose, of 1823, usually classified as an Alba but which could also well be a Damask, is the beautiful fragrant, semi-double 'Amelia', sadly seldom seen these days. It is a lovely shade of soft blush pink further enhanced by an array of golden-yellow anthers.

I will always enjoy the company of Alba roses in my garden no matter what their correct names. Quite apart from the intrinsic beauty of their flowers, their abundant grey foliage is extremely healthy and they are amongst the easiest of roses to grow. I am sure the lady to whom I referred at the beginning chose to buy a rose which will serve her garden well by flowering more or less continuously throughout each summer. 'Maiden's Blush' though, even *in absentia*, can still smile with the satisfaction of being amongst the fairest of them all!

## DNA STUDIES ON THE MUSK ROSE AT FLORIDA SOUTHERN COLLEGE, LAKE LAND, FLORIDA.

By Malcolm M. Manners

Originally given at the

9<sup>th</sup> International Heritage Rose Conference in Charleston, South  
Carolina

For an introduction to Malcolm see the article People page 39

ACKNOWLEDGEMENT: This article reports on research done by Dr. Nancy Morvillo, molecular geneticist at Florida Southern College, Lakeland, Florida, and two undergraduate students, Ms. Carmella Frederick and Ms. Amanda Wagner, over the summer of 2001.

### INTRODUCTION:

The musk rose, *Rosa moschata*, has played an important role in the history of the Noisette roses, in that it is reported (along with 'Old Blush') to be the parent of 'Champneys' Pink Cluster', progenitor of all of the Noisette class of roses. Yet the history of the musk rose is odd, in that it seemed to disappear for many years. The rose described as *R. moschata* in Gerard's Herbal of 1597 and painted by Redouté between 1817-1824 is not the same as the rose grown under that name for many years since then. Graham S. Thomas, in his book, The Graham Stuart Thomas Rose Book 1994, describes his rediscovery of the "true" musk rose in England, and as recorded in these proceedings in Marie Butler's article, she and her late husband John, Dr. Charles A. Walker Jr., and Ruth Knopf, discovered several accessions of the true musk rose in Virginia, North Carolina, and South Carolina, USA.

For a number of years, we at Florida Southern College have been collecting the musk roses, and as far as we know, we grow or have grown all of the known accessions discovered in Britain and the USA. We wanted to have them all in one garden for comparison, much in the same way the Hampton Park garden, in Charleston, is being used to study the Noisettes. After observing these roses, we noticed that there appear to be only four forms:

1. the single (5 petals) form (*R. moschata moschata*)
2. the double form (with thin petaloids that tend to shrivel and turn brown in the sun) (*R. moschata plena*) {These roses were both painted by Redouté and the FSC roses appear to be identical}
3. a very double form, with broader, thicker petaloids that do not turn brown in the sun (no Latin subspecies assigned; called the 'Temple' musk)

4. The 'Bremo Double Musk', our plant of which differs from the others in that it is more climbing, less floriferous, and has shinier leaves, than the other forms. It should be noted that it was suggested at the Charleston conference, by those who know this rose, that we may not have the real 'Bremo Double', and that the real thing is likely the same as the usual double form described in item 2, above.

FSC's musk rose collection currently includes the following:

- Elmwood Single (=Burwell Plot Single)
- Elmwood Double (=Burwell Plot Double)
- Crenshaw Double (and its single sport)
- Burwell School (double)
- Gate Tayloe (double) (and its single sport)
- Saluda (double) (and its single sport)
- Graham Thomas's Single (from England)
- Temple (very double)
- Bremo Double (double, but noticeably different from the others)

#### DNA RESEARCH PROJECTS ON MUSK ROSES:

The goal of the research done by Dr. Morvillo's lab was to study how closely related these musk roses are i.e. are they all different clones, or are there really just four clones involved, despite the fairly large geographical area over which they've been discovered?

The procedures, which are fully described below, and also referred to in the following section on Noisettes, won't be repeated here. We performed a RAPD ("Randomly Amplified Polymorphic DNA") analysis of the musk roses, with 5 DNA primers. We used all of the accessions mentioned above, except that we did not test the single-flowered form of the Saluda musk.

#### RESULTS:

All of the Musks listed above appear to be genetically identical, using 5 primers, except for the Burwell School musk, and the Bremo Double Musk. The Burwell School musk shows very slight differences from the others, probably not enough difference for it to be a seedling of one of the others, but perhaps it has some minor mutations, or perhaps an inactive virus in its genome. The Bremo Double Musk appeared to be quite dramatically different from the others, indicating that it is not at all closely related. However, as mentioned earlier in this article, there is the possibility



that we don't have the "real" Brema Double Musk in our collection. We plan to get another plant of it. for further testing.

We know from observation in the garden that the double Musks commonly sport (mutate) to become the single form. We are also aware of at least two cases of the double form sporting to become the 'Temple' form, although that mutation is far more rare; the mutation from single to double seems to be the rarest of all in that it has been reported in the past, but we have never seen that sport occur. Assuming that doubling is controlled by a single gene, it is reasonable that a RAPD analysis using 5 primers would not "see" such sports, so it is to be expected that single and double forms would appear identical in our tests.

These results lead us to believe that the gene pool for the cultivated musk rose is extremely small, indeed, that all of the US accessions, as well as the one documented British accession, may have come by vegetative propagation, from the same original plant. These results, along with the observation in the garden of sporting from one form to another, also demonstrate that giving subspecific rank to the double vs. single forms is taxonomically invalid.

## DNA RESEARCH ON THE EARLY NOISETTES AT THE HAMPTON PARK STUDY GARDEN.

### INTRODUCTION:

While the history of the early Noisette roses in Charleston is fairly well-known, we do not have solid proof that the roses we grow today, under the historic names, are actually those original roses nor can we be sure that Noisettes sold under the same name at different nurseries are in fact the same rose. A major part of the ongoing research on the early Noisette roses in Charleston's Hampton Park Study Garden has been to try to solve some of those problems. As part of that research, we at Florida Southern College used techniques of DNA analysis to study the following questions:

1. Are the various 'Champneys' Pink Cluster' grown and sold by various US rose nurseries actually the same rose?
2. Are the various 'Blush Noisette' grown and sold in the U.S. the same rose?
3. Are 'Old Blush' and *R. moschata*, as we grow them today, the parents of 'Champneys' Pink Cluster' as grown today?
4. Is 'Champneys' Pink Cluster', as grown today, a parent of 'Blush Noisette'?

### STUDY 1: COMPARING 'CHAMPNEYS' PINK CLUSTER' AND 'BLUSH NOISETTE' ACCESSIONS

The study compared 'Champneys' Pink Cluster' from





ELECTROPHORESIS

LOADING GEL







*Single Musk*  
*Rosa moschata moschata*



And the Redouté version of the same rose







*Double Musk*  
*Rosa moschata plena*



And the Redouté version of it







**ROSA GALLICA OFFICINALIS**



**ROSA GALLICA VERSICOLOR  
(ROSA MUNDI)**

(Photos: CRS Slide Library)



these sources: the Antique Rose Emporium, the Center for Historic Plants (Monticello), Chamblee's Nursery, Vintage Gardens, Wayside Gardens, Ruth Knopf, and the rose known in Florida as "Cato's Cluster." The 'Blush Noisette' sources were the Antique Rose Emporium, Joyce Demits (Heritage Rose Gardens), Rose Guardians Nursery, and Vintage Gardens.

These roses were compared by extracting DNA from young, expanding leaflets and/or flower petals, then performing a RAPD analysis using 5 primers, and then separating the DNA by agarose gel electrophoresis.

## RESULTS:

All of the 'Champneys' Pink Cluster' tested were identical with all five primers, except "Cato's Cluster," which showed slight differences, indicating that while it is very closely related to the other roses in this study, it is not identical. This is not surprising since, although "Cato's Cluster" is often grown and shown as 'Champneys' Pink Cluster', it is obviously not the same as the others in its flowers, leaves, or growth habit.

All of the 'Blush Noisette' candidates studied were identical for all five primers. These results indicate that, while nurseries and individuals throughout the U.S.A. may have acquired their 'Champneys' Pink Cluster' and 'Blush Noisette' from various original sources, they appear to be growing the same roses under those names.

## STUDY II: PARENTAGE OF 'CHAMPNEYS' PINK CLUSTER' AND 'BLUSH NOISETTE'

Since these two roses seem to be consistently identified, and since the historic literature says that 'Champneys' Pink Cluster' is the offspring of the musk rose (*Rosa moschata*) and 'Old Blush' (a China rose), we studied the relationship of the two Noisettes to each other, as well as to *R. moschata* and 'Old Blush', as grown today. Again, a RAPD analysis using 5 DNA primers was used.

## RESULTS:

We found that the single-flowered musk rose (*R. moschata*) and 'Old Blush' jointly accounted for all the bands we saw for the 'Champneys' Pink Cluster' accessions, giving us very strong reason to believe that those two roses are the parents of 'Champneys' Pink Cluster', as grown and identified today, and therefore, strengthening our opinion that we are growing the "correct" 'Champneys' Pink Cluster' today. In the 'Blush Noisette'

study, 'Champneys' Pink Cluster' accounted for approximately half of the DNA bands of 'Blush Noisette', supporting the concept that 'Champneys' Pink Cluster' is a direct parent of the rose we grow today as 'Blush Noisette', and therefore, strengthening our opinion that we are growing the "correct" 'Blush Noisette' today.

#### A BRIEF EXPLANATION OF DNA ANALYSIS, AND SPECIFICALLY, RAPD ANALYSIS, AS USED IN THE FLORIDA SOUTHERN COLLEGE ROSE STUDIES

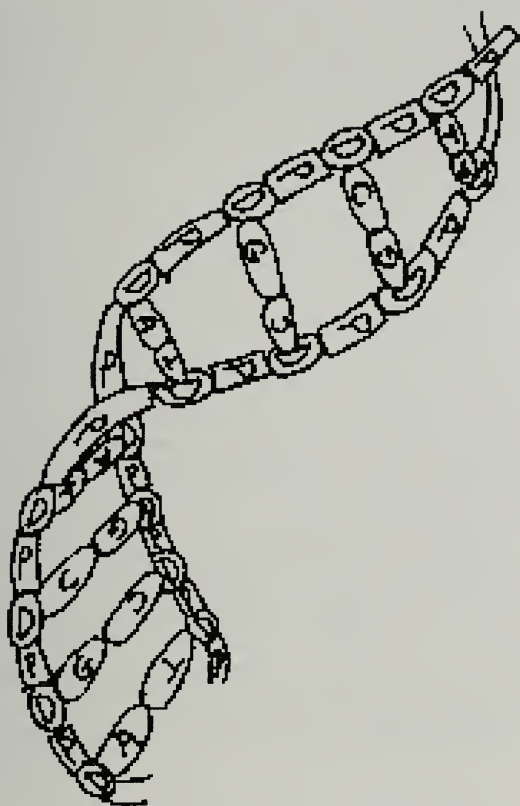
DNA analysis has become a very powerful tool in many areas of science, over the past decade: as evidence in criminal trials, determining paternity, identifying genetic disorders, etc. Recently, these methods are being used to study the relationships of old roses. You have read the present research done on the musk roses, 'Old Blush', and the early Noisettes 'Champneys' Pink Cluster' and 'Blush Noisette'; it now seems appropriate to provide an explanation for the layman of how such analyses are done, and what they can (and can't) tell us.

#### DNA THE RECIPE FOR LIFE.

DNA, deoxyribonucleic acid, is the material by which all living things store their genetic information: the "recipes" for making and doing everything that the organism does. The DNA molecule consists of two long chains of alternating sugar (deoxyribose) and phosphate molecules, making up the "sides of the ladder" of the familiar double helix structure, and nucleotide bases attached to the sugar units, paired up to make the "rungs" of the ladder. There are only four nucleotide bases involved, adenine, thymine, cytosine, and guanine, generally abbreviated "A," "T," "C," and "G." Because of their chemical structure, these bases are specifically attracted to each other in such a way that A always matches T, and C always matches G. If you know the sequence of nucleotides running down one side of the double helix "ladder," you can predict the sequence of the other side. For example, if one side reads ATTCCGGGCCTAACATG, we can guarantee that the other side must read TAAGCCCGGATTGTAC, since A must match up to T, and C must match up to G. (See opposite for picture)

This DNA code can be thought of as a language, through which all of the "recipes" for life are recorded. In an animal cell, most of the DNA is stored in the nucleus, a small blob in the cell surrounded by a membrane. Animal cells also have some DNA in their mitochondria, smaller blobs that deal with energy management in the cell. Plants also have nuclear and mitochondrial DNA, and in addition, they have some DNA in their chloroplasts, the tiny





THE DOUBLE HELIX OF DNA

chlorophyll-containing blobs in the leaf that give leaves their green colour. DNA analysis may be done with any of these sources of DNA; in our studies, we always used nuclear DNA.

In the nucleus, the DNA is arranged into discrete bodies known as chromosomes. Roses normally have 14, 21, or 28 of these chromosomes. Each chromosome has one very long double helix of DNA, perhaps several tens of thousands of base-pairs long. A chromosome may be thought of as a recipe book. Each "page" of the book describes a new "recipe": a set of instructions for one specific trait or characteristic of the plant. This "page" or "recipe" is a sequence of nucleotide base-pairs, starting at a very specific spot on the chromosome, and ending at another, very specific spot. Each such recipe is called a "gene." Aspects of a rose that might be controlled by a single gene include thorniness, leaf surface texture (smooth vs. fuzzy), flower colour, the fading characteristics of flower colour, one of the components of fragrance (rose fragrance is generally a mixture of several chemicals, each of which would have been coded by a separate gene), whether the plant will climb or be a shrub, whether it will repeat or be once-flowering, etc. One gene may be as small as a few hundred base pairs long, or could be many thousands of base pairs. Each chromosome may have thousands of genes along its length.

Unlike a well-edited recipe book, the DNA normally also has many long sequences of "noncoding" base pairs, rather as if your recipe book had pages of gibberish interspersed among the good recipes. While it is certainly possible to do DNA analysis on specific genes, and in medical research, that is often the goal, our work with roses always involved the noncoding sequences. While these sequences don't appear to code for any particular characteristic of the rose, they are inherited from their parents, and are very useful for comparing roses, with the goal of determining if two roses are identical, or if one is the parent or at least a close relative of the other.

DNA is the "language of life," and while it codes for an amazing amount of variability among organisms (consider elephants vs. roses vs. mushrooms), it does so with a remarkably limited alphabet and vocabulary. The "alphabet" of the language is the four bases, ATCG. The vocabulary is also quite limited in that one of the "rules" of the language is that each word must consist of precisely three letters, no more and no less. Therefore, there can be only 64 possible words in the entire language. Each 3-base "word" is called a "codon." A gene will contain a specific number of codons, enough to describe the trait for which that gene is responsible.

Clonal material (e.g., all plants of one variety of rose, or identical human twins) would have exactly the same genes in exactly the same spots, as well as the same noncoding DNA sequences between their genes. Therefore, when DNA analysis is performed on them, they appear identical. However, different individuals, even if closely related (brother and sister, for example) will have significant differences in their DNA sequences, and even a very simple DNA analysis will show them to be non-identical. Since the sequences are inherited from two parents, each parent accounts for about half of the offspring's sequences. Hence, we can test parentage by checking to see if one plant accounts for about half the genetics of its purported offspring. If comparing both purported parents to an offspring, between them, they should account for *all* of the sequences present.

DNA analysis of roses can be quite useful in predicting how, or at least how closely, two roses are related to each other, but there are several things it cannot do.

It *cannot* identify a historic variety, if we don't have a known specimen of the historic variety to work with. For example, there are several candidates for the "true" 'Slater's Crimson China' in commerce. We can easily determine if those candidates are closely related to each other but, lacking the original, guaranteed "true" 'Slater's Crimson China', we can never hope to prove that any one of the extant roses is the real thing. Unfortunately, DNA analysis can never prove parentage of a rose, if we don't have both parents and the offspring available for testing.

## OUR PROCEDURE FOR DNA ANALYSIS

We used the RAPD method for analyzing roses in this study. RAPD is an acronym for "Randomly Amplified Polymorphic DNA" analysis.

First, young leaves or flower petals of the rose to be tested are collected. DNA is a fairly sturdy material, so no great care is needed to keep the tissue fresh and turgid. However, the procedure is susceptible to problems with contamination from foreign DNA, so we are very careful not to touch the tissue, and we want tissues that are as surface-clean as possible.

The tissue is ground up in a buffer solution, then centrifuged, to separate the DNA from other cell parts. In theory, we could work with as little as one molecule of DNA, but realistically, a normal sample will have many molecules, from many cells. That DNA is then "amplified," or multiplied, by PCR.

PCR: Polymerase Chain Reaction (PCR) is a technique which has revolutionized genetic studies in the last decade. It is a

system which allows one to start with too small an amount of DNA to work with in normal laboratory procedures, and multiply it up to useful amounts, without changing the nature of that DNA. The key to the process was the discovery of a heat-tolerant enzyme, Taq polymerase, in a bacterium that lives in scalding hot water in a hot spring in Yellowstone National Park. All living organisms make their own forms of DNA polymerase, the enzyme which multiplies DNA, but the unique aspect of Taq polymerase is its tolerance of very high temperatures, without being destroyed by cooking.

The DNA sample is put into a vial, along with some Taq polymerase, as well as an abundance of the 4 nucleotide bases (ATGC), and some other materials not to be discussed here. A "primer" is also added to the mixture. Primers are manufactured short sequences of DNA.

The mixture is then put into a PCR reactor machine, which simply heats and cools the mixture. The mixture is first heated to 94°C (201.2°F). At that temperature, the double strands of the DNA split apart, much like the two sides of a zipper unzipping. Now we have *single* strands of DNA, with the nucleotide bases not matched up to their corresponding bases.

The mixture is then cooled down to 35°C (95°F). At this cooler temperature, the primer will attach itself to any spot on the DNA with a good match of the corresponding nucleotide bases. Primers are chosen and made to match up to common sequences found in non-coding portions of DNA. The distance between these areas will vary widely, from one individual to another.

The mixture is then reheated to 72°C (161.6°F). At this temperature, the Taq polymerase will find those spots where the primers have bound, and it will build a new second strand from there, adding corresponding nucleotide bases, one at a time, until it runs into another primer.

The process is then repeated. In each cycle, the DNA between two primers is doubled, whereas DNA that was not between two primers will not be multiplied. The cycle is repeated usually 41 times. In the first cycle, we got a doubling of the DNA. In cycle 2, we have 4 times the original amount. Cycle 3 gives us 8 times the original. After cycle 41, we are up to a potential 2.19 *billion* copies of the DNA. That's enough to work with in the lab.

## AGAROSE GEL ELECTROPHORESIS.

Now that we have an abundance of DNA, we can compare it to the DNA of other roses (or any other DNA, for that matter). A bit of the sample is placed into an indentation ("well") at the end of a rectangular slab of agarose gel. The gel looks like a

piece of clear Jell-O or congealed chicken broth, with a stiff, jelly-like consistency. It's a slab about 4 inches wide, 8 inches long, and perhaps 3/4 inch thick. DNA samples for comparison are placed in other wells on the gel. The gel is then hooked up to electrodes, and a DC electrical current is passed from one end of the gel to the other. Strands of DNA, which carry a slight electrical charge, will migrate down the gel slab. The speed at which they move is directly related to how big the strands are: short, and therefore lightweight strands move quickly; longer, and therefore heavier strands move more slowly.

Once the migration has proceeded long enough, the gel is detached from the electrical supply, and an ultraviolet light is shown through the gel. DNA glows under UV light, so we can see the "bands" of DNA. Since the primers bound themselves to several different spots along the original DNA molecule, there will normally be several bands produced for each sample.

Since the binding sites for the primers will vary among individuals, the lengths of the DNA fragments will vary from one individual to another, and therefore, the bands will have moved different distances on the gel. So in comparing samples from 2 identical (clonal) individuals, all the bands will match exactly, in the distance they traveled. Distantly related or unrelated individuals may have hardly any of their bands match up for distance travelled. A parent's and an offspring's DNA samples should show about half the parent's bands at the same spots on the offspring's bands.

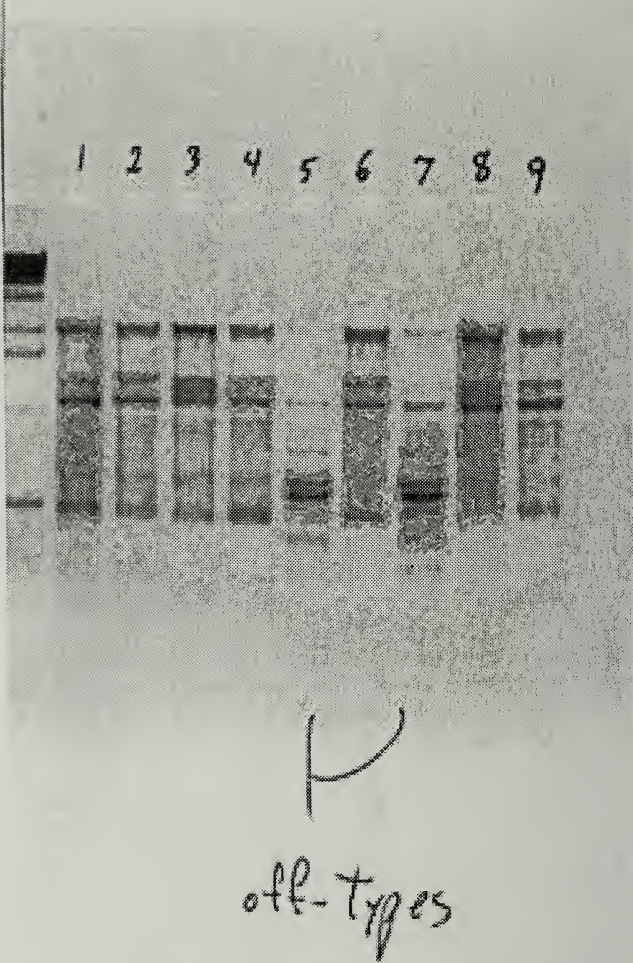
At this point, a black-and-white Polaroid photo is made of the gel, as a permanent record of the results. (See the picture next page)

The use of a single primer usually won't give much useable information. But the more primers you use, the more definitive the results will be. We used 5 different primers, which is a good, "large" number. A 5-primer analysis would often hold up in a court of law, as valid evidence. Of course, we could have used far more primers, but the process is tedious and expensive, and at some point one must decide how valuable the addition of yet another primer would be to the results of the study. For our purposes, 5 primers was considered a good number.

## RESEARCH ON THE MECHANISM OF DOUBLING OF FLOWERS IN ROSES

While working with the musk roses, Dr. Morvillo and her student researchers became interested in the mechanism of genetic control of that aspect of roses. A search of the scientific literature found that Dr. Shogo Matsumoto, of Gifu University, in Japan, had





THE BLACK-AND-WHITE PICTURE OF  
THE RESULTS

found the gene that controls doubling in the weedy cabbage relative, *Arabidopsis thaliana*. He had also demonstrated the presence of the same gene in roses. Dr. Morvillo contacted Dr. Matsumoto, who sent her genetic material to work with, in order to study that gene in the musk roses at Florida Southern College.

At this point, it is not known that that gene is the controller of doubling in roses, but it is known that it controls doubling in *Arabidopsis*, and that it is at least present in roses. That knowledge, along with the observations from the garden in which sports are common rather than rare, led Dr. Morvillo to suspect that a transposon, or "jumping gene," may be involved.

Transposons were discovered by Dr. Barbara McClintock a number of years ago, and it was some time before the scientific world in general came to believe that they even existed. The idea seemed outlandish. Their existence is now fully accepted; we know of several good examples of them and how they work. In a nutshell, a transposon is a sequence of DNA that has the ability to "jump" out of its original location in the DNA chain, and then reinsert itself into another area of the chain. Hence, the nickname "jumping gene." The movement is not entirely random; there are certain areas on a DNA molecule where the transposon is more likely to go. If a transposon were to become located *within* a gene, coding for some trait of a plant, it would likely cause that gene to malfunction, and the trait would therefore change. This is what we think may be happening in the formation of double flowers in roses.

An aside, on the matter of flower development: flowers are produced at the tips of stems, from tissue that had been producing leaves. A change occurs from vegetative growth of stem, leaves, prickles, axillary buds to the production of flowers. In the development of flowers, the changes occur gradually. First, sepals are produced. Notice that the sepal of a flower is more like a leaf than is any other flower part. Later in development, the growing point changes to produce petals, similar to sepals, but quite different from leaves. Then later, it switches again, to produce stamens, which are structurally similar to petals. In his work with *Arabidopsis thaliana*, Dr. Matsumoto found that there are 3 genes which manage the change from leaf production to the production of sepals, petals, stamens, and finally pistils. The three genes are labelled A, B, and C. When all three genes are turned "off," the growing tip of the stem produces more stem with leaves. When gene A is activated, sepals are produced. If Gene B is activated while A is still active, petals are produced. Normally, gene A is deactivated at about the same time as gene C is activated. B and C, working together, make stamens. Finally, when B deactivates, with

C still active, pistils (carpels) are produced. Dr. Matsumoto discovered that if the C gene is mutated so as not to function, during the time stamens would normally be made, only the B gene will be functioning properly. Under such conditions, the flower (of *Arabidopsis*) makes petaloids, rather than stamens, effectively doubling the flower. Then, when gene C, alone, should be active, making pistils, such mutant plants instead make sepal-like flaps in the centre of the flower.

In double musk roses, this is exactly what we see: petaloids where there should be stamens, and odd, sepal-like flaps in the centre of the flower, where one would normally expect to find pistils.

Assuming that musk roses use the same system of ABC genes as does *Arabidopsis*, it would appear that the double forms of the musk rose have a defective C gene. This defect could be due to the insertion of a transposon within that gene. The reason for believing that a transposon is the source of the “problem” is the interesting pattern of how the mutation occurs: double often sports to single (an indication that the transposon has “jumped” out of the C gene, to another position on the chromosome). But the reverse sport, single to double, is *far* less common, as would be expected — the transposon has many sites to which it could jump. There is a relatively small probability that it will land within the C gene on any particular jump.

Unfortunately, this research is just getting started. We have primers for the C gene, thanks to Dr. Matsumoto. This coming summer (2002), we hope to continue the research on the musk roses, to see if this really is the system they use to determine the amount of doubling in the flowers. This system does not explain the ‘Temple’ musk; there must be some other gene involved there, which allows a typical double musk to make thicker, broader petaloids. If it turns out that musk roses do use exactly the same system as does *Arabidopsis*, for doubling, it will be interesting to see if that is the case for all roses.

## PROPAGATION OF MUSK ROSES

The true musk rose (*Rosa moschata*) has been rare in, or absent from, the nursery trade for many years. It seems likely that at least part of the reason for its rarity is the fact that it has been considered difficult to propagate. While other roses may root easily from cuttings, the musk rose has always been a challenge to root and grafting/budding musk roses has not always proven easy, either.

We are reporting on research performed at Florida Southern College by the author and his HRT 207 Introduction to

Horticultural Science class, over a period of several years.

#### CUTTINGS.

For years, we had difficulty rooting musk rose cuttings but through experiments done by the horticulture class, we discovered the key to good rooting success with the musk rose. First, we found that there is definite advantage in wounding the base of the cutting. We use a double wound — scraping a thin strip of bark off the base, on opposite sides (2 scrapes), 1/2 to 1 inch long. Semi-hardwood, leafy cuttings 4-6 inches long seem to work well. We try to leave at least 3 whole leaves attached, often more.

Besides wounding, the other key to good rooting seems to be the use of a root-promoting hormone, at a higher concentration than would be used for most roses. We experimented with Rhizopon AA#1 (0.1% indole-3-butyric acid [IBA] in talc), Rhizopon AA#2 (0.3% IBA in talc), and Rhizopon AA#3 (0.8% IBA in talc) powders. While most roses root best with the #1 or #2 powder, and may be burned by the #3, the musk roses root very poorly or not at all with those lower concentrations, but with the #3 powder, we normally get 70-90% rooting. Similar experiments using liquid Dip 'N Grow (1% IBA and 0.5% 1-naphthalene acetic acid [NAA]) in alcohol) produced similar results. For most roses, we use a dilution of 1 part Dip 'N Grow to 8 or 10 parts water. With the musk roses, such concentrations produced very poor rooting. By increasing the concentration to 1 part Dip 'N Grow to 4 or 5 parts water, we again greatly improved the rate of rooting, often into the 70-90% success range.

Our cuttings are rooted in a peat-perlite mixture (Fafard #2P), in 2-7/8 x 2-7/8 x 5-3/4 inch square, bottomless "forestry pots." They are kept in an intermittent mist bed, in full sun. The mist sprays for about 10 seconds every 5 minutes throughout the day and is turned off at night.

The secrets to success for rooting musk rose cuttings seem to be the use a double basal wound, and the use of a more concentrated rooting hormone preparation than would be used for most other roses.

#### GRAFTING/BUDDING.

Most of the musk roses in the Florida Southern College collection came to us in the form of bud wood, through the mail. In nearly every case, the success rate for grafting or budding them was poor. In several cases, we had to request additional shipments of bud wood to get a single plant going. This is unusual; rose bud wood usually ships well, and may be stored for at least a week

without refrigeration, and up to several months with refrigeration, with little loss of viability. We therefore assumed that musk roses were simply difficult to graft successfully. However, once we had the plants in our own gardens and started to propagate a second generation of them, we discovered that they were rather easy to graft with a high rate of success. It now appears to us that the key to good grafting success with the musk roses is to use very fresh bud wood, preferably grafting it on the day it is harvested. We can then achieve greater than 90% success rates.

As is usual in Florida, we graft to 'Fortuniana' rootstocks, using the cleft bench graft method, in which a scion with several leaves is grafted to a leafy rootstock cutting, and then the combination is placed under intermittent mist until the cutting forms roots and the graft has healed, usually 4 or 5 weeks. Alternatively, we've had good success with a cleft graft, in which a leafy scion is grafted to an already-rooted plant of 'Fortuniana', and placed back into the mist for several weeks, until the graft union forms. With this type of graft, it is not necessary for the 'Fortuniana' rootstock portion to have any leaves, but it is useful to have at least two leaves on the scion.

A third method which has worked well for us is to chip bud the musk rose to rooted, leafy 'Fortuniana' rootstocks. No doubt the standard inverted-T bud, used throughout the world for propagating roses, would also work well, on a different rootstock, but it is a method that does not work well on 'Fortuniana', since that rootstock's bark tends not to peel cleanly away from the cambium.

In summary, musk rose cuttings are fairly easy to root if the cuttings are wounded at the base and a rooting hormone at higher-than-usual concentration is used. Budding and grafting are also successful, if very fresh bud wood is used.



## SOIL: THE HAPPY MEDIUM

by Richard Mitchener

A rose planted in virtually any old soil will grow and bloom, but for healthy, vigorous, high-quality roses the character of the soil is crucial. What happens beneath the ground surface is probably more important to the rose than all the deadheading, pruning, spraying and watering that happens above. The more one knows about the nature of soil and the soil requirements of roses—and the more one puts that knowledge into practice—the more satisfying will be the results.

Soil is a complex mixture with each component affecting all the other properties of the soil: texture, structure, moisture air, pH, drainage, organic matter, nutrients, even climate. We treat them more or less separately here, but a good understanding of soil and soil processes is dependent on realizing that they all work together all the time.

### SOIL TEXTURE AND DRAINAGE

Soil is a mass of mineral particles mixed with living and dead organic matter, incorporating quantities of air and water. The size and form of the mineral particles chiefly determine the texture of the soil. Clay particles are the smallest; sand particles are the largest; and silt represents the intermediate size. Clay and sand give their names to two soil textures, whereas a combination of the three particle sizes forms *loam* soil. Ideally, a rich sandy loam soil should be the normal choice for your roses, because it both retains water and allows water and oxygen to penetrate to the root zone; it has the best soil texture for roses. Texture is important, because texture affects drainage.

Clayey soils consist in large part of miniscule, flat platelets of minerals such as feldspar and mica that overlap and bind together horizontally, hindering the vertical movement of water through the soil and preventing or filling microscopic air pockets. Clayey soils are usually well supplied with nutrients, however, and the retarded drainage slows the loss of those nutrients through downward leaching of water. Sandy soil particles are chunky and irregular in form, allowing tiny air spaces among them and permitting water to pass readily to depth. Too much sand allows both water and soil nutrients held in solution to leach down rapidly to depths beyond reach of plant roots. Overwatering to overcome the resulting drought only emphasizes this.

In times past, clayey soils were thought to be proper for all roses. This notion held true for plants with rootstocks deriving from *Rosa multiflora* or *Rosa canina*, both of which are well

adapted to clayey soils. Roses on their own roots, however, prefer less clayey, lighter soils. Lighter soils provide better drainage, avoiding the 'wet feet' that roses dislike. Roses generally prefer water to percolate through the soil for the relatively deep watering the plants need.

A good loam is considered to have about 50% pore space by volume, of which roughly half is normally air and half water. Organic material may constitute only about 4-6% of the loam soil, but its small percentage belies its importance. It plays a significant role in assisting soil clumping and the formation of pore spaces. The remainder of the loam, just under 50%, is inorganic, of which 60% is sand, 20% silt and 20% clay. To assess the soil's characteristics and determine the need for modifications, a soil test is highly recommended (more later).

The ideal soil is one in which the soil particles are bound together into water-stable granules. A texture of this type allows ready penetration of plant roots into the soil, good aeration and rapid infiltration of water.

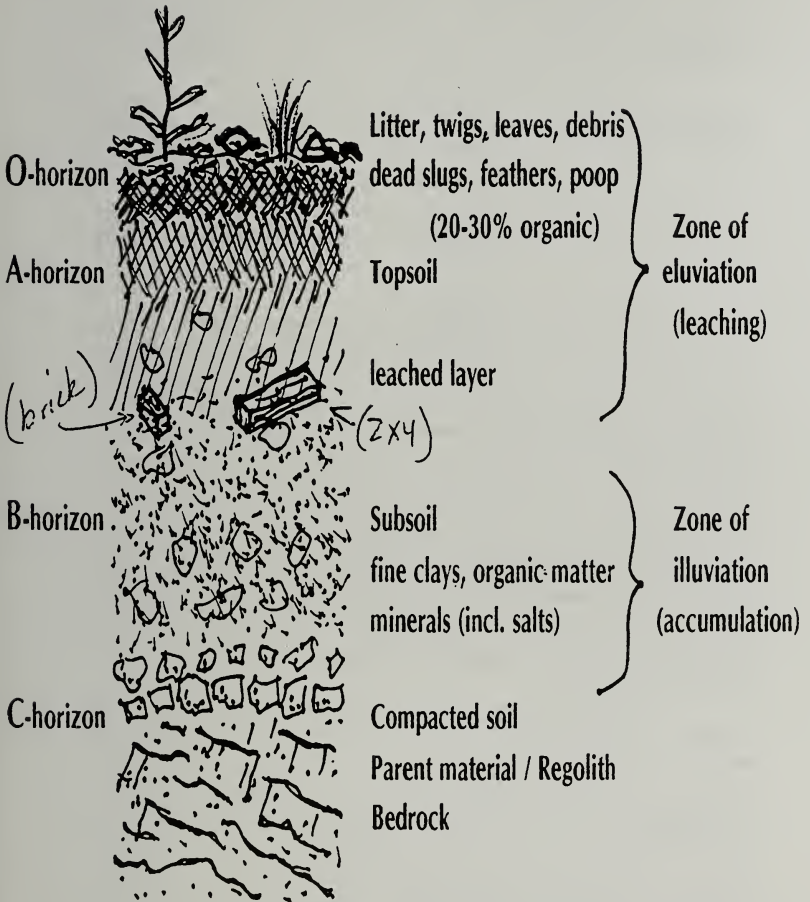
#### SOIL STRUCTURE

Drainage and its near relative, soil moisture, depend on soil texture and structure. Structure refers to the way the soil particles group together in large masses or aggregates. Proper rose growing requires an understanding of soil structure, because soil is not a static substance. Soil is constantly dynamic, slowly changing, and exchanging physical and chemical components vertically with seasons and applications of water and soil amendments. Various factors contribute to the formation of the soil structure: alternate wetting-drying and freeze-thaw cycles, plant root action, ground disturbances, and other phenomena. Soil structure varies by climate with the relative amounts of organic matter, water salts, and minerals depending on local climate and the geology of the surface.

#### SOIL PROFILE

Soil differs vertically in colour, texture, structure, salt content, and amount of organic material. Distinctive layers, or horizons, are identifiable. At the ground surface, loose leaves, stems, other organic debris and compost may be added naturally or by hand; this layer is the organic or O-horizon. Organic material is valuable because it feeds the bacteria in the soil that facilitate the conversion of nutrients into forms available for absorption by the root system. Typically the O-horizon, involving also the upper topsoil, contains more than 20-30% organic matter and is the richest layer in both organic matter and nutrients. Decomposition of organic matter is extensive and washed continually downward into the topsoil and the lower layers.

# SOIL PROFILE



The topsoil itself, a dark, relatively humus-rich layer, may be only six inches or so (roughly 15 cm) deep. This layer is the A-horizon, and together with the O-horizon is known as the 'zone of eluviation'. In rainy climates, the smallest soil particles, nutrients and bits of organic matter are constantly broken down and leached downwards, removing them from the A-horizon. Beneath the topsoil is a layer, still in the A-horizon, that is lighter in colour and leached of organic matter. Consequently, in rainy climates, applications of nutrients, compost and organic mulch are both desirable and necessary for optimal rose growth.

Farther down is the subsoil, the B-horizon, where minute particles of minerals (including salts), fine clays and organic matter collect. This layer, which may be as little as 12 inches (30 cm) or as much as 39 inches (1m) from the surface, is the 'zone of illuviation', formed by the tight accumulation of particles leached from above. In rainy climates, clay subsoils are common in the B-horizon.

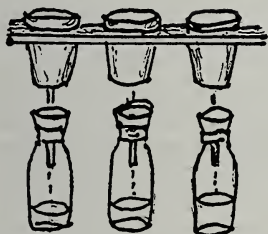
#### SOIL MOISTURE AND AIR

Water and air in the soil are important for good plant growth. Rose plants use some water, some is lost by evaporation, some runs off, and some is leached so deeply into the soil that plant roots cannot reach it. Proper drainage and a porous surface help water to penetrate to the root zone. Water and organic materials in the soil interact in such a way as to benefit the roses. Increasing the organic material in soil usually has the effect of increasing its water-holding capacity. Sandy soils thus benefit immensely from heavy applications of compost, leaf mould, or other organic matter. As organic matter decomposes in the soil, it produces carbon dioxide, replacing some of the oxygen in the soil. Carbon dioxide is dissolved by water in the soil to form a weak acid which reacts with minerals and forms compounds that can be taken up and used as food by the plants.

The relationship of soil texture and water capacity is evident. All nutrients that enter the roots must do so in a water solution. Light, sandy soils allow water to pass the rose roots quickly, holding only about 1 inch of water per foot of soil; loam holds about 1.25 inches per foot, and clay soil about 1.75 inches per foot. Heavy clay soils, which hold more water, reduce the exchange of gases such as oxygen and carbon dioxide. Lack of oxygen restricts plant growth and fertilization uptake and toxic substances are often formed in the soil, causing damage to the plant.

The 'soil solution' refers to the water in the soil pore spaces containing dissolved minerals such as nitrates, sulphates, calcium, sodium, potassium and trace elements in ionic form. A

## Test for Water Retention



100% - %H<sub>2</sub>O in jar = \_\_\_\_%

50%-60% ideal

## Test for Drainage



Wait an hour.



plant takes nutrients through the roots only in inorganic/ionic form, requiring water as a carrier. Without adequate water in their cells, leaves lose their turgor. Over a sustained period, too little water leads to wilting and death.

Too much water in the soil can also be harmful, causing root rot and other troubles. Weeping tiles or raised beds may be the answer to a drainage problem.

Both drainage and water retention, in balance, are extremely important in the soil. A balanced soil texture is one that allows water and oxygen to pass through the soil at a rate slow enough to permit nutrients to be taken up by the plant roots. Soil with poor drainage or excessive water retention fills the tiny spaces in the soil with water, forcing out the oxygen, reducing desirable chemical reactions, and compacting the soil. Soil with too little water retention causes nutrients to pass through the soil so rapidly that roots have little opportunity to use them. A well-balanced soil is the answer to this and many other soil problems. It is important to understand soil, its constituents and the associated soil processes because imbalances can result in poor plant growth. Although soils and climates differ widely from region to region, requiring variations in plant care and involving differences in soil treatment, the basics are the same everywhere.

#### TEST FOR WATER RETENTION

To measure the water-retention capability of the soil fill three clay pots with garden soil. Place each pot over a quart jar and pour one quart of water into each pot. Mark the amount of water that falls into the jar after 15 minutes, 30 minutes, and one hour. The percentage of water retained in the soil is measured by subtracting the percentage of water in the jar from 100%. Water retention should be in the 50-60% range. If the soil retains too much water, add sharp sand in proportion to the soil and retest. If the soil does not retain enough water, add a water-retaining material such as well-dampened peat moss, compost, water-holding gel or organic mulch.

#### TEST FOR WATER DRAINAGE

To measure the drainage rate of the soil under rose beds, cut off both ends of a big coffee can and push it down into moderately moist soil about an inch. Fill the can with water. If it takes more than an hour for the water to disappear, improve drainage by adding sharp sand. If water dissipates in less than half an hour, add a water-retaining material as above and test your results as in the test for water retention.

*See illustrations previous page*

## SOIL pH

The designation pH is a measure of the hydrogen (acid-forming) ion activity of the soil. It expresses the degree of acidity or alkalinity in the soil. The pH scale has 14 levels, with a pH of 7 being neutral. Values below 7 constitute the acid range, and values above 7 are alkaline. Organic material, chemical fertilizer, spray material and rainfall can alter the pH. Even the constant use of city or well water can change the pH. Periodic testing of pH is considered by some growers to be important in order to sustain good plant growth, as is testing of the water supply. An annual soil test (see below) or the use of a pH meter will alert the grower to the necessary amendments needed to keep the pH at the proper level. In general, clays and calcium-rich limestone soils tend toward alkalinity, whereas sands and sandy loams tend to be more acidic. Although roses tolerate a wide variation, a slightly acid soil, pH of 6-6.5, is generally considered ideal.

Concern about soil pH is warranted because, in spite of regular fertilization the plant can suffer malnutrition because of too high or too low a pH level. The major impact of extremes of pH on plant growth is related to the availability of plant nutrients. In highly acid soils, manganese can concentrate at toxic levels whereas nitrogen, potassium, calcium, phosphorus, and magnesium become tied up at a pH of 4 and are completely unavailable.

Normally it takes 60-120 days for any change of pH, depending on soil conditions unless a quick-acting product is used. Fertilizing, peat moss, compost and other organics, as well as rainfall, will all change pH, which suggests that periodic pH checks are useful.

Alkaline soils are common in regions of light rainfall. At pH levels above 7, calcium carbonate (lime) or sodium may be plentiful, but phosphorus, iron, copper, zinc, boron, and manganese become less available. If the soil is alkaline, rose leaves may appear diseased or distorted. Iron chlorosis, for example, produces yellowing foliage with distinctly green veins. In regions of highly alkaline soil, rose growers may wish to plant in raised beds or containers using a commercially prepared potting soil mix. Alkalinity may be reduced by adding liberal amounts of peat moss, ground bark, or sawdust. Fertilization with acid-type fertilizers and periodic applications of chelates also help.

*Chemicals and Organics to reduce pH.* Compost (except mushroom compost) and other organic materials tend to lower pH slightly. Aluminum sulphate reduces pH, as does ammonium sulphate, both of which also add nitrogen. For a soil of pH 7.5 or higher, rose expert R. C. Allen writing in Roses: Brooklyn Botanic

Garden Record, page 15, suggests applying powdered sulphur at a rate of 3 lb. per 100 square feet. The charts will help you to understand the relationship between pH level and nutrient availability and the amount of material needed to correct a problem. If either sulphur or phosphorus is used to correct a nutrient deficiency, it will also lower the pH level.

Acid soils tend to occur in areas of heavier rainfall and are often associated with sandy soil and soils high in organic matter. Acid soil is typically deficient in phosphorus but can contain too much manganese and aluminum. Earthworms also seem to dislike acid soil.

*Add lime to increase pH.* Lime can be added at any time of year, but it takes time to change the pH. Autumn, winter, and early spring are thus preferred times to apply lime. Hydrated lime may take effect in two or three months, but ground lime may take up to six months. Avoid adding lime along with other fertilizers. Refer to a soil test for the best type of lime to use. If a test indicates the soil is low in magnesium, use dolomitic limestone; if high in magnesium, use calcitic limestone. For soil with a pH of 5 or lower, R. C. Allen recommends applying ground limestone to the soil at a rate of 3-10 lb. per 100 square feet, depending on the degree of acidity.

Mushroom compost, which is typically lime-rich, and wood ash from your fireplace may be used to raise the pH. Wood ash has roughly the same percentage of nitrogen, phosphorus, and potassium as the compost but caution must be exercised because wood ash tends to be caustic. Use no more than once every two years, spreading it lightly over the soil surface and cultivating it in.

Some experts hold that instead of being concerned about pH, the rose gardener should simply apply lots of well-seasoned compost or similar organic matter to the soil, and all of the major and minor trace nutrients needed for high-performance growth will be available to the rose plants.

#### **Reducing Soil Acidity**

Lbs. of limestone to apply (per 100 square feet) to raise pH to 6.5

Original pH	Sandy soil	Silt or Loam	Clay soil
4.5	10.0	11.0	12.0
5.0	7.0	7.7	8.4
5.5	5.0	5.5	6.0
6.0	3.5	3.8	4.2

Use no more than 5 lbs at any time. If more is needed, wait a month.

### **Reducing Soil Alkalinity**

Lbs. of agricultural sulphur to apply (per 100 square feet) to lower pH to 6.5

Original pH	Sandy soil	Silt or Loam	Clay soil
8.0	2.2	4.0	6.0
7.5`	1.5	2.0	2.5
7.0	0.7	1.5	2.0

Use a maximum of 2 lb. at one time. If more is called for, wait a month between applications.

Source: Beckstrom, R.J., & Smith, M.D., editors, *Ortho's Guide to Enjoying Roses*. San Ramon, CA: Ortho Books, 1994, p.105

### **SALINITY**

Besides the problems of acidity and alkalinity, soil salinity, involving an excess of salts, can be a major problem in drier regions of the country. These salts may be present naturally in the soil or they may come from tap water, especially softened water, which can have a high sodium content, from fertilizers and chemical amendments, and from manures with high salt content. Where salts are not leached through the soil by abundant rainfall or deep irrigation, they can reach high concentrations in the root zone where they inhibit germination of seed, stunt plant growth and cause leaves to scorch and turn yellow, or leaf margins to brown and wither (salt burn). Periodic and thorough leaching with water will lessen the content of salts but also nutrients and humus. For leaching to be effective, there must be good drainage.

Even in regions of greater rainfall, such as eastern Canada or British Columbia, soil can accumulate excessive salts from the relatively heavy fertilization that is common for roses. Salt accumulation interferes with water availability in the root zone, inducing a physiological drought in rose plants that can result in retarded growth and foliage injury. This effect intensifies as the soil moisture content decreases. The higher the salt content of the soil, the greater the stress on the plant to obtain moisture from the soil.

Not all salts have the same effect on the soil. Some fertilizers present a considerable risk of plant injury by inducing physiological drought. Many of the high-analysis fertilizers commonly used on roses can produce a high 'salt index', but when applied in suitable amounts, the salt effect is usually not a problem .

A given concentration of soluble salts may not be injurious if the soil is kept moist and evaporation rates are low, but given the opposite conditions, the same salt concentration can cause root injury which in turn can cause wilting of shoots.

All waters except distilled, most rain, or melted snow contain some dissolved salts. Common components (ions) of salts contained in water supplies are calcium, magnesium, bicarbonate, chloride, fluoride, and sulphate. Calcium, magnesium and potassium are plant nutrients, but can cause reduction in plant growth when present in quantities greater than required by the rose plant.

Chlorides are especially injurious, causing reduced plant growth and leaf drop. As the soil becomes dry, it takes only one drying cycle under these conditions to cause loss of roots, causing the plant to lose leaves.

The term 'salt index' indicates the relative physiological drought-inducing effect produced by an equal weight of any fertilizer. Nitrate of soda, potassium chloride, and ammonium nitrate are capable of inducing high salt effects when applied in more than moderate amounts. Other materials, notably the phosphates, ammoniated or otherwise, have a relatively low 'salt index'.

It is well to recognize the importance of water in the use of fertilizers capable of inducing high salt effects. Adequate amounts of water both before and after fertilizing are necessary to insure both good distribution of the material and minimum salt accumulation.

Care should be exercised in the use of conservative methods of watering where an analysis of the water indicates a high concentration of soluble salts. A watering system delivering a greater quantity of water at one time should be sought.

Not all soluble salts affect rose plant growth adversely in excessive amounts but where the concentration of the chlorides, in particular, is too high an application of gypsum before leaching is desirable. Gypsum tends to improve soil aggregation and consequently the drainage of water. It is also very effective in displacing or facilitating the leaching of other salts from the soil. The liberal supply of calcium in gypsum exchanges places with other metal ions held in the soil and can be tolerated to an unusual degree.

In laboratories, electrical conductance tests on soil samples indicate excessive accumulation of soluble salts which retard growth on roses. A high 'salt index' may not be as harmful in winter as in summer. Plant injury is most likely to result during



hot dry days of summer.

## SOIL TESTING

If one wishes to test the soil, there are several alternatives. Your local garden centre normally sells soil test kits that commonly measure acidity/alkalinity (pH) and the presence of nitrogen, phosphorus, and potassium. For some people this may be enough, but for such measurements as soil density, organic content, salinity, the presence of specific trace elements such as boron, zinc, or manganese, or for toxins and contaminants such as lead or arsenic, one should send soil samples to a testing laboratory. Each Canadian province has at least one soil testing laboratory. Fees for services vary according to the nature and number of the tests desired and the number of soil samples taken from the garden. One sample may suffice, but for large gardens and those with evident site differences, up to a dozen or more tests may be required.

### Alberta

Alberta Agriculture, 905 O.S. Longman Building, 6909-116 St., Edmonton, AB T6H 4P2	Alberta Environmental Centre, P.O. Bag 4000 Vegreville, AB T0B 4L0
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Norwest Labs. 9938 – 67 Ave.,  
Edmonton AB T6E 0P5

### British Columbia

Griffin Laboratories, 1875 Spall Road, Kelowna, BC V1Y 4R2	Norwest Labs. 203 – 20772 Langley Bypass, Langley, BC V3A 5E8
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### Manitoba

Manitoba Soil Testing .  
Room 262, Ellis Building,  
University of Manitoba,  
Winnipeg, MB R3T 2N2

### New Brunswick

New Brunswick Dept. of  
Agriculture,  
Provincial Agricultural Lab,  
P.O. Box 6000,  
Fredericton, NB E3B 5H1

### Newfoundland

Agriculture Canada Research  
Station,  
P.O. Box 7098,  
St. John's, NF A1E 3Y3

### Nova Scotia

Nova Scotia Dept of Agriculture  
and Marketing, Soils and Crop  
Branch, P.O. Box 550, Truro, NS  
B2N 5E3

### Ontario

Agrifood Labs.  
503 Imperial Road, Unit 1,  
Guelph, ON N1H 6T9

Civic Garden Centre,  
777 Lawrence Ave. East,  
Toronto, ON M3C 1P2

**Prince Edward Island**

Soil and Feed Testing Lab,  
PEI Department of Agriculture,  
Box 1600,  
Charlottetown, PE C1A 7M3

**Quebec**

Soil Testing Lab,  
Macdonald Stewart Building,  
Room 2-099, Macdonald  
College,  
Ste-Anne-de-Bellevue, PQ  
H9X 1C0

**Saskatchewan**

Saskatchewan Soil Testing Lab,  
Department of Soil Science,  
General Purpose Building,  
University of Saskatchewan,  
Saskatoon, SK S7N 0W0

Soil Labs Source: The Canadian Green Consumer Guide, Prepared by the Pollution Probe Foundation, McClelland & Stewart, 1989.

**SOIL NUTRIENTS**

If the soil drains well, has ample water, is neither too acid nor too alkaline, and still fails to sustain healthy, vigorous plant growth, it may be deficient in nutrients, most commonly nitrogen. Fertilizers are the quickest and easiest answer, though often not the best. Many 'complete' fertilizers are available. There are also formulations that provide any of the three basic elements—nitrogen, phosphorus, and potassium—individually, such as blood meal: high in nitrogen; bone meal: mostly phosphorus. Manure and compost have surprisingly small quantities of nutrients, but are effective principally in building up the supply of organic matter in the soil. Soil analysis will reveal the major soil nutrient deficiencies.

Plant nutrients fall into two major categories: macro—nitrogen, phosphorus, and potassium and micro—calcium, magnesium, sulphur, iron, boron, manganese, zinc, copper and molybdenum. Both groups are crucial to optimal plant growth. Macronutrients, as the name implies, are needed in greater quantities than micronutrients, which are needed only in trace amounts generally. Soil water also is crucial because only in solution can any nutrient be absorbed into the root system.

Some nutrients are taken up by roots more readily than others, regardless of their usefulness to the plant. In fact, some minerals may be absorbed in quantities that are poisonous to the plant. Minerals move independently in the soil and in the soil solution. Potassium may move into root hairs more rapidly than calcium. Soil acidity (pH) also affects the absorption of minerals by the presence of organic matter in the soil and by the general soil

composition.

Calcium, hydrogen and oxygen are absorbed from air and water, so the following section ignores these nutrients and concentrates on nutrients influenced by soil acidity. Understanding the interrelationships of various fertilizing elements is the first step in developing a suitable fertilization program.

**Nitrogen** stimulates growth. Tall strong canes, good blossoms, and rich dark green foliage are evident when nitrogen is in balance with the soil. A shortage of nitrogen is indicated by a lightening of the green colour and even yellowing of the leaves in extreme cases. Excess nitrogen can be even more harmful, resulting in weak, soft canes, small blossoms and decreased plant resistance to disease.

Nitrogen exists in three forms:

Nitrates are readily available to the rose without going through any change in the soil. This is the most available form of nitrogen.

Ammoniacal nitrogen is only moderately available to the plant because it must become nitrate to be available to the plant.

Urea is the slowest available nitrogen because it must undergo many changes to make it available to the plant.

**Phosphorus** stimulates root growth to produce higher quality plants and bigger blossoms. It may also hasten plant maturity, adding to winter hardiness. Phosphorus is available in various compounds but the most important factor for availability is soil acidity with the ideal being a pH of 6.5. At too low a pH iron and aluminum interfere with the uptake of phosphorus. A slightly higher pH affects uptake only slightly.

**Potassium** promotes root growth, vigour, and blossom colour, and like phosphorus, it counteracts the harmful effect of excessive nitrogen. Potassium tends to counteract undue ripening and exerts a balancing effect on both nitrogen and phosphorus. It is essential for starch formation and the development of chlorophyll by encouraging photosynthesis. Potassium readily leaches and should not be allowed to drop too low. Low potassium and high magnesium may lead to magnesium toxicity. Excessive amounts of potassium interfere with the intake of magnesium and calcium, causing serious problems for the rose bush. A deficiency causes weak stems, many blind canes, and brown leaf margins. Potassium in the soil is affected by many things, and the type of clay mineral in the soil has a marked influence on its availability. These minerals may be added in the form of fertilizer or may already be present in the soil. Clays tend to expand when wet and upon drying contract. This contraction entraps potassium and makes it less available to the plants. Soil acidity has little influence on potassium. However,

most of the potassium available to plants can be replaced by hydrogen (the H in pH) in acid soils. An acid condition could indicate the possibility of a potassium deficiency which causes the acidity, rather than the other way around.

**Sulphur** is used by the plant in the development of essential organic compounds of proteins, vitamins, etc. Sulphur has been removed from the air, many fertilizers, and spray formulas to the point that it is becoming the most deficient element in our soils. Sulphur is present in organic material and is converted by bacteria to sulphates which are very soluble and can be leached quickly from the soil. A soil test is recommended to determine the sulphur content of the rose bed.

**Calcium and magnesium**, like potassium, are present mainly in the plant's leaves. One of the important functions of these minerals is to neutralize certain toxic acids which form as a by-product of metabolism. In acid soils below 6.0 most of the available calcium and magnesium are found attached to electrically charged clay and organic matter, a form readily available to plants.

The micro-elements **iron, manganese, boron, zinc, copper, molybdenum, and chlorine** are usually sufficient in a well-prepared, fertile soil. Only small amounts of trace elements are needed in a rose's diet, but a shortage of one or more may cause a serious decrease in the availability of major elements.

### CORRECTING NUTRITIONAL DEFICIENCIES

ROSES SHOWING THESE EARLY VISUAL SIGNS:	MAY BE DEFICIENT IN:	SOURCE: (O) Organic (I) Inorganic	RATE : per sq m
Foliage & veins pale green colour, weak spindly stems, small flowers. Starts at lower leaves and moves up. Poor growth.	NITROGEN	(O) Blood meal, Cottonseed meal and manure. Rate of 60g (I) Nitrate of soda or ammonium sulphate Rate of 30g	
Leaves show lack of chlorophyll, deepened colour, red to bronze. Poor growth.	PHOSPHATE	(O) Bone meal, fish scraps or animal tankage. Rate of 60g (I) Super phosphate or ammonium phosphate Rate of 30g	
Leaves become brown or scorched on tops and edges. On lower leaves moves up plant. Slow stunted growth	POTASSIUM	(O) Wood ashes compost, or manure Rate of 60g (I) Potassium sulphate or potassium chloride Rate of 30g	

Leaves curl and dry up, centre of leaves turns brown. Starts at top of plant. Uneven growth.	CALCIUM	(O) Gypsum, bone meal and basic slag Rate of 250g (I) Nitro-chalk Rate of 30g
Yellow or purple discolouration, veins remain green. Leaves fall prematurely. Growth normal	MAGNESIUM	(O) Fish meal, basic slag Rate of 60g (I) Epsom salt, dolomitic limestone Rate of 30g
Foliage pale in colour and yellow veins at top of plant	SULPHUR	(I) Sulphur, ammonium sulphate and potassium sulphate Rate of 30g
Foliage pale green in colour, veins remain green, stems yellow at top of new growth	IRON	(O) Bone meal dried blood Rate of 60g (I) Iron sulphate Rate of 30g
Crowding of leaves, appears excessively healthy. New foliage malformed, mottled yellow. Found at top of plant	BORON	(O) Fish meal and soot Rate of 60g (I) Borax, calcium borate, sodium borate 15g in 2 1/2 l of water
Pale spots on new foliage, interveinal chlorosis, mottled on older leaves at top of plant	MANGANESE	(O) Sewage sludge Rate of 60g (I) Manganese sulphate Rate of 15g in 2 1/2 l of water
Chlorotic, small thick leaves on short stems. Failure of growing tips to develop	ZINC, COPPER, MOLYBDENUM	(O) Sewage sludge Rate of 60g (I) Zinc sulphate, copper sulphate and sodium molybdenate Rate of 15g in 2 1/2 l of water



## RECENT LITERATURE ON ROSE RESEARCH

by Professor David H. S. Richardson, Dean of Science,  
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This compendium summarizes papers published in research journals throughout the world. Summaries and comments are by Professor David Richardson, Dean of Science, St. Mary's University, Halifax, Nova Scotia B3H 3C2. If readers wish to consult the full paper and cannot find a copy at their local university, write to Professor Richardson enclosing one dollar per page to cover the cost of photocopying and postage.

**Bar-Tal, A., Baas, R., Ganmore-Neumann, R., Dik, A., Marissen, N., Silber, A., Davidov, S., Hazan, A., Kirshner, B., & Elad, Y. (2001).** Rose flower production and quality as affected by Ca concentration in the petal. *Agronomie*, **21**:393-402.

About 20% of rose flowers produced for export from Israel in winter are rejected because of grey mould infection. Increasing the amount of calcium in the nutrient solutions supplied to the rose plants grown on rockwool enhanced calcium levels in the flowers. This in turn increased the resistance to grey mould infection. Night-time irrigation with added calcium increased the amount in the leaves but not in the petals and so was ineffective at enhancing disease resistance.

**Jenks, M. A., Andersen, L., Teusink, R. S. & Williams, M. H. (2001).** Leaf cuticular waxes of potted rose cultivars as affected by plant development, drought and paclobutrazol treatments. *Physiologia Plantarum*, **112**:62-70.

The Miniature Rose cultivar 'Apollo Parade' had more wax per leaf area than 'Charming Parade'. Paclobutrazol (PBZ) is routinely used on potted roses to retard growth and enable them to withstand the adverse conditions of transport and sale. As well as inhibiting growth, PBZ causes a 10% increase in wax on the leaves. A way to avoid using this chemical is to apply moderate stress to the plant during production, and this also enhances wax production, so that withering does not occur as easily.

**Lorenzo, H., Cid, M. C., Siverio, J. M., & Ruano, M. C. (2000).** Effects of sodium on mineral nutrition in rose plants. *Annals of Applied Biology*. **137**:65-72

In countries with mild winters, such as the Canary Islands, salinity is a major factor affecting flower production. If undesirable ions like sodium are present in the water, additional irrigation and extra expense is involved. Sodium has a negative effect on shoot elongation, even when flower development is normal. It also decreases the uptake of essential potassium, nitrate and phosphate. Added sulphate alleviates some of the effects of high sodium levels.

**Lykas, C. H., Giaglaras, P. & Kittas, C. (2001).** Availability of iron in hydroponic nutrient solutions for rose crops. *Journal of Horticultural Science and Biotechnology*, **76**:350-352.

Iron is a very important nutrient for rose crops. Nutrient solutions are made up and held in tanks, which are periodically replenished. This study showed (a) that it is not essential for the solution in the tanks to be kept in complete darkness; indeed in a well mixed solution exposure to light and photodissolution will not significantly affect the availability in the solution, but (b) the tanks must be agitated or levels of iron will be reduced in the nutrient solution and the plants can suffer deficiency.

**Muller, R., Stummann, B. M., Sisler, E. C. & Serek, M. (2001).** Cultivar differences in regulation of ethylene production in Miniature Rose flowers (*Rosa hybrida* L.). *Gartenbauwissenschaft*, **66**:34-38.

Silver thiosulphate (STS) is commonly sprayed on plants in the pot flower industry to reduce post-production flower bud drop. This is caused by ethylene formed by the plants as a result of transport and sale stress. Silver is toxic so that alternatives like 1-methylcyclopropene (1-MCP) are being studied. In sensitive Miniature Rose cultivars like 'Bronze' (of the 'Parade' breeding line), exposure to ethylene caused severe bud drop within four days but treatment with 1-MCP prevented this.

**Neshev, G., Stefanova, E., Naumova, E., Michailova, A. & Nesheva, I. (2001).** Investigations of adverse reactions of treatment with rose oil by immune monitoring of patients with chronic active cholecystitis. *Toxicology*, **164**:112.

The effects of Bulgarian rose oil on patients with chronic gall bladder infection were studied. Rose oil appeared to inhibit part of the immune response system that is involved in the inflammation.

**Nicetic, O., Watson, D. M., Beattie, G. A. C., Meats, A. & Zheng, J. (2001).** Integrated pest management of two-spotted mite *Tetranychus urticae* on greenhouse roses using petroleum spray oil and the predatory mite *Phytoseiulus persimilis*. *Experimental and Applied Acarology*, **25**:37-53.

The two-spotted mite is a major rose pest and causes severe damage in greenhouses. The mite has also developed resistance to pesticides. In Australia, a predatory mite was introduced but proved ineffective unless supplemented by chemical control. This study showed that a combination of petroleum spray oil and the predatory mite could be used. The oil must be sprayed on the upper part of the canopy, leaving the lower part as a refuge for the predatory mite. Incidentally, petroleum spray oil in addition to helping kill the two-spotted mite also controls powdery mildew. The cost of the combination oil and predatory mite is half that incurred if chemical control using fungicide and miticide is employed.

**Nimura, M., Yosgimi, H., & Kondou, M. (2001).** The influence of porous ceramic particle size and fertigation quantity on the yield and quality of roses grown in soil-less culture. *Journal of the Japanese Society of Horticultural Science*, **70**:636-649.

The growth of greenhouse roses was compared using rockwool and on porous ceramic beads as substrata for soil-less culture. Reducing bead size increased the water holding capacity and gave bigger flowers with longer stems but the plants did not grow as well. Overall, the quantity and quality of flowers on rockwool was less than on the porous ceramic beads and the subsequent vase life was shorter.

**Pryamojo, A., Yotani, Y., Hattori, K., Kageyama, K. & Hyakumachi, M. (2001).** Characterization of *Rhizoctonia* spp. causing a root and stem rot of Miniature Roses. *Plant Disease*, **85**: 1200-1205.

Miniature potted roses are among the best selling plants. In 1997 and 1998, a root-rot disease appeared in the Gifu region of Japan in which the rose plants wilted and had severe root-rot. The fungus proved to be *Rhizoctonia* and the isolates invaded during rooting and then caused severe damage. Thus, careful attention to fungal disease control is essential at the rooting stage. A series of fungal strains were found, but among the most virulent was *Rhizoctonia solani* AG 2-2 III B, reported for the first time from roses. Studies

are now needed on the ecology and pathogenicity of these fungi to develop protocols for controlling what could become a very serious rose disease.

**Raviv, M. & Blom, T. J. (2001).** The effect of water availability and quality on photosynthesis and productivity of soil-less grown cut roses. *Scientia Horticulturae*, **88**: 257-276.

Water is a key limiting factor to agricultural production and is becoming scarce in many countries. Water use efficiency by plants is therefore of increasing importance. This review discusses the science behind water use efficiency and examines how water availability affects roses grown in soil-less substrata like pumice.

**Rohozinski, J., Epstein, A. H. & Hill J. H. (2001).** Probable mechanical transmission of a virus-like agent from rose rosette disease-infected multiflora rose to *Nicotiana* species. *Annals of Applied Biology*, **138**: 181-186.

Rose rosette disease (RRD) was first described from Manitoba, Canada, in 1941 and is lethal to *Rosa multiflora*. For this reason, it has been encouraged as a biological control for this noxious weed in USA. However, concerns include potential spread to garden roses. Many attempts have been made to identify the nature of RRD. This paper reports the cause to be virus-like particles. The infective agent was transmitted from roots of infected roses to tobacco plants. The latter plant is a virus indicator and exhibited pale green spots. Virus-like particles were seen in the tissues adjacent to the leaf veins near the pale green spots.

**Suo, Y. & Leung, D.W. M. (2001).** Elevation of extracellular  $\beta$ -1,3-glucanase and chitinase activities in rose in response to treatment with acibenzolar-S-methyl and infection by *D. rosae*. *Journal of Plant Physiology*, **158**:973-976.

Glucanases and chitinases are plant enzymes that are involved in defence mechanisms against invading fungi. Pretreatment with BTH (acibenzolar-S-methyl) stimulated these enzymes in rose plants and enhanced resistance to black spot, reducing the development of disease symptoms. It is possible that BTH could eventually be used as part of black spot control programs.

## **THE CLEARING HOUSE**

Compiled and Edited by

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This 2001/2002 Clearing House is my first since becoming Editor, taking over from Audrey Brisbane. As a CRS member I have waited with anticipation each year for the arrival of the Annual and that year's Clearing House. It has always been a 'good read': full of information, humour, and advice on which roses to buy and which to avoid, and when Audrey announced she intended to retire as Editor, I decided I would like to attempt the job. As Audrey suggested I would, I have enjoyed compiling the 2001 Clearing House, and as a bonus, I got to read it 'first' this year.

I would like to thank Audrey for all her help and encouragement. Over the many years during which she compiled the Clearing House, she developed a method for organizing the material, which she kindly passed on to me in the form of a computer 'template'. Most of the information about the varieties was gathered by her and so a large portion of this Clearing House is still hers. Thank you Audrey. I would also like to thank Judith Roback for proofreading the document as it was being compiled, and Anne Graber who checked it before it went to the Editor of the Annual. Any errors, however, are mine.

Finally, thank you to all the rose lovers who have contributed reports. Without you, there would not be a Clearing House. I hope you are already making notes for next year's reports.

I received for the 2001 Clearing House, published in the 2002 Annual, 361 reports from 31 contributors. The number of contributors was about the same as last year, but the total number of reports was down considerably (60). The number of reports ranged from one (still a significant and welcomed report) to sixty-one reports submitted by Chuck Decker of Anchorage, Alaska. Doreen Stanton (37), George Shewchuk (29), and Milford and Betty Clausen (28) also submitted numerous reports. Many of you are long-time contributors, some are returning after an absence, and several are new contributors. To all: 'Thanks'.

Many contributors continue to add new roses of all classes to their gardens, but a trend to modern shrub roses and Austin Roses seems to be developing, especially in Canada. As Editor, I hope all the readers of the Annual, and especially new members, who have added newly-introduced roses to their gardens,



will compile reports and participate in next year's Clearing House. Reports should be sent to the Editor at the above address by Dec. 1, 2002.

# **PROVINCE/USA**

<b>CONTRIBUTORS</b>	<b>2000/1</b>	<b>2001/2</b>
Alberta	3	2
British Columbia	14	7
Manitoba	0	0
New Brunswick	1	0
Newfoundland	0	0
Nova Scotia	2	1
Ontario	5	13
Prince Edward Island	0	0
Quebec	2	3
Saskatchewan	1	1
USA	3	3
<b>Total Contributors</b>	<b>31</b>	<b>30</b>
<b>Total Reports</b>	<b>424</b>	<b>361</b>

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25. Samarin, Barbara, 7158 Lancrest Terr., PO Box 514, Lantzville, BC, V0R 2H0. Zone 7b.
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27. Shewchuk, G. W., 10231 Fulton Rd., NW, Edmonton, AB, T6A 3T5. Zone 3a.
28. Somerville, Ruth, 496 Scarborough Golf Club Rd., Scarborough, ON, M1G 1H2. Zone 6a.
29. Stanton, Doreen, 172 Maplehurst Ave., Toronto, ON, M2N 3B9. Zone 6a.
30. Webster, Philip G., 4 Cowley Ave., Toronto, ON, M9B 2E1. Zone 6a.

**PLEASE NOTE:** The full name and address, and zone, of each contributor is listed under **CONTRIBUTORS**. Surnames only are used in individual reports.

## HARDINESS ZONES

The Hardiness Zone which occurs after each contributor's name and address, is an attempt to utilize the new *2000 Plant Hardiness Zones Map* produced by Natural Resources Canada's Canadian Forest Service scientists (the following information is from Agriculture and Agri-Food Canada's Website). The new map updates the *1967 Plant Hardiness Zones Map* using the same variables ("Plant survival data, and a wide range of climatic variables...") with additional, more recent climate data (1961-90). The effect of elevation has also been incorporated into the new map. Changes in the hardiness zones are "generally consistent with what is known about climate change...and are most pronounced in Western Canada". Contributors in BC especially, will notice a change in their zones. The new map utilizes nine major zones—the harshest is Zone 0, and the mildest is Zone 8. Subzones (e.g. 5a, 5b) are used as in the past.

For our purposes the new map has a major drawback. It is impossible to compare it to the *USDA Plant Hardiness Zone Map*, so I have used that map to extract zones, correctly I hope, for American contributors. If I have incorrectly determined anyone's zone, please inform me and I will change it for the future.

## ABBREVIATIONS USED IN TEXT

feet - '	Large Flowered Climber - LCI
Floribunda - F	Miniature - Min or Min (patio)
Grandiflora - Gr	Mini-Flora - MinFl
Ground cover - (Gc)	no date - nd
Hybrid Tea - HT	plant(s) - pl(s)
inches - "	Shrub rose - S
Kordesii Shrub - K	year(s) - yr(s)
The abbreviation 'int' is used for 'date of introduction'.	

## ABBREVIATIONS USED FOR AWARDS

AARS	All-America Rose Selection
ADR	Anerkannte Deutsche Rose
ARC	American Rose Centre
AoE	Award of Excellence (Miniatures)
FA	Fragrance Award
GM	Gold Medal
PIT	President's International Trophy (England)
RNRS	Royal National Rose Society
ROTY	Rose of the Year

**NOTE:** Awards won by a particular rose are shown in the brief general description following the name of the variety.

## COLOUR CLASSIFICATIONS

Because the Canadian Rose Society and American Rose Society colour classifications are now almost identical, abbreviations below are used throughout. Any variations are given in the text.

White or near White	W
Light Yellow	LY
Medium Yellow	MY
Deep Yellow	DY
Yellow Blend	YB
Apricot & Apricot Blend	AB
Light Pink	LP
Medium Pink	MP
Deep Pink	DP
Pink Blend	PB
Orange & Orange Blend	OB
Orange Pink	OP
Orange Red	OR
Medium Red	MR
Dark Red	DR
Red Blend	RB
Mauve or Mauve Blend	M
Russet	R

## STANDARD DESCRIPTION

This was compiled using Modern Roses 11 and the Combined Rose List 2002 and is given following the name of each variety; hybridizer; date of ARS registration; date of introduction; parentage (if available); official Colour Classification; a brief colour description as shown in Modern Roses 11, Botanica's Roses, a Rose Catalogue, or other source; petal count; fragrance; awards.

**NOTE:** The comment 'No reports' indicates the variety was reported on in previous years but no reports were received in the current year. For the Clearing House, a rose is reported for 7 years, plus the current year, FROM THE DATE OF INTRODUCTION, then I state 'Last year for reporting this rose'.

## HYBRID TEAS

**AFFIRM, HT (McMILLAN'S PINK), HT** (McMillan '98 int '97) (Seedling x Seedling). MP, 26-40 petals. No reports.

**AIN'T SHE SWEET (TWIN PEAKS), HT** (Winchel '93 int '94) (Seedling x Dolly Parton). OR, terra cotta orange to deep orange-red, 30-35 petals, very fragrant. No reports. (Last year for reporting this rose.)

**ALADDIN'S DREAM, HT** (Twomey '95 int '94) (Silver Jubilee x

Evening Star). DP, 32-36 petals. Shewchuk (1 pl 4 yrs 2.5' AB): Bloom 4", 25 petals, long-lasting, good repeat. High-centred form. Good substance. Large, dark, glossy, thick foliage. No disease. Needs winter protection. Vigour declined fifty percent due to lack of snow to protect the soil from drying out. (Last year for reporting this rose.)

**AMERICAN HONOR, HT** (Twomey '93 int '94) (Sheer Elegance x Seedling). MP, ivory-pink, 32 petals, slight fragrance. Shewchuk (1 pl 8 yrs 2.5' AB): Ivory pink. Bloom 5", 32 petals, good repeat. Light fragrance. High-centred, exhibition form, good substance. Thick, med-green, semi-glossy foliage. No disease. Needs winter protection. (Last year for reporting this rose.)

**ANGELA LANSBURY, HT** (Twomey '95) (Gitte x Silver Jubilee). PB, iridescent pink and cream, 28 petals, sweet spicy fragrance. Clausen (1 pl 3 yrs 3' IL): Bloom 28-30 petals, can be exhibition, average substance. Lacks get up and grow power. Dark green, glossy foliage. Stayed clean of disease all season. Survived last winter with minimum protection. After three years, Angie is still hanging around. My bush has no vigour and blooms are very sparse. Sometimes we blame the variety and the problem is a bad plant. Shewchuk (2 pls 4 yrs 3.5' AB): Light pink. Bloom 4.5", beautifully shaped, always in bloom. Classic high-centred form. Good substance. Vigorous growth. Medium-dark, thick, large foliage, no disease, needs winter protection. Everyone likes Angela.

**ANNE MORROW LINDBERGH, HT** (Warriner '93, int '94) (Seedling x Seedling). PB, pink/white/ yellow blend, 26-40 petals, some fragrance. No reports. (Last year for reporting this rose.)

**ARC ANGEL, HT** (Fryer '96). (Name commemorates the Diamond Jubilee of ARC - the Arthritis and Rheumatism Council). OB, 28-35 petals. Dyck (1 pl 1 yr 60 cm BC): Orange blend, copper yellow, fading to salmon . Bloom classic form, elegant bud, high centre. Form better in cool weather. Substance better than most. Bushy growth. Dark green foliage. Healthy. Hardiness unknown. One of the very best in my copper- orange rose bed. Webster (1 pl 2 yrs 4' ON): Pale orange outer petals, pinkish yellow at base. Good substance. Upright growth. Dark, glossy, green foliage. No disease. Has very attractive show type blooms, singly or in clusters. Some fragrance.

**ARTISTRY (ONCE TOUCHED), HT** (Zary '98 int '97) (Seedling x Seedling). OB, OP, coral orange/creamy coral reverse, 30-35 petals, light sweet fragrance, AARS '97. Decker (1 pl 4 yrs AK): Healthy and nice colour. Poor bloom production and rebloom. Raven (1 pl 5 yrs 60 cm AB): Orange-red. Very large salmon-orange blooms, touch of creamy salmon toward the centres.



Decorative form, excellent substance. Bushy growth. Mid-green foliage. No disease. Must mulch for hardiness. Shewchuk (1 pl 5 yrs 3.5' AB): Orangey- coral blend. Bloom 4.5" 34-48 petals, good repeat. Med-low centred form. Light fragrance. Very good substance. Growth upright, sturdy. Dark, semi-glossy foliage. No disease. Winters well with my method of planting and 12" of peat moss cover.

**AURELIA WEDDLE (ARELIA WEDDLE), HT** (Weddle '95). OR, 65+ petals. No reports.

**AWARENESS (LADY ABERDEEN), HT** (Fryer int '97). DP, dark rosy pink, fragrant. Baillie (1 pl 1 yr 30" QC): Slow to open and seemed more red than deep pink. Exhibition form. Upright growth. Good foliage. Disease-free. Hardy. This rose was shaded a bit by a delphinium but really did not perform well. Maybe a misnamed rose? Bishop (2 pls 1 yr 3' ON): DP, 40 petals, double, repeat blooms. Exhibition form. Excellent substance. Very bushy. Good foliage. No disease Very good exhibition rose. It's a keeper. Broks (1 pl 1 yr 3.5' ON): Deep pink, rich and velvety colour. A good repeat bloomer. Singles on long stems. Large blooms with high centres. Exhibition form. Excellent substance. Upright, vigorous growth. Reddish-green, abundant foliage. Disease-resistant. A beautiful rose! Very strong, disease-free rose that is a winner. Fragrant. Good cutting rose—long-lasting. A repeat bloomer. Comeau (2 pls 1 yr 2-3' NS): Blooms medium size, good fragrance. Good upright growth. Good foliage. No disease. Hardiness good with cover. I have two different roses by the same name. One peachy-pink with better blooms this year, the other a darker pink. Both upright growth. Not many blooms on the dark pink one. Somerville (1 pl 1 yr 4' ON): Medium HT bloom, one to a stem. Exhibition form. Strong substance. Tall. Shiny, dark green foliage. A little black spot. Hardiness unknown. Pleased with this one so far. Stanton (1 pl 1 yr 2' ON): More MP than DP. Exhibition form. Good substance. Compact growth. Medium-green foliage. No disease. Hardiness unknown. Did well for the first year. Webster (1 pl 1 yr 22" ON): Dark pink. Show bench form. Good substance. Upright growth. Medium, glossy foliage. No disease. Quite fragrant. Solid pink—no shading or variation.

**BARBRA STREISAND, HT** (Carruth '99) ((Blue Nile x (Ivory Tower x Angel Face) x New Zealand). M, lavender, 26-40 petals, intense fragrance. Cullen (1 pl 2 yrs 4' NY): Good hardiness. Always wonderful fragrance but only the occasional decent bloom which is easily burnt or discoloured by heat, sun, and dew. I keep it because of the fragrance.

**BELLE ÉPOQUE, HT** (Fryer 94) (Remember Me x Simba). R,

AB, inside golden bronze/outside deeper, fragrant. Dyck (1 pl 2 yrs 1m BC): Colour inside the petal—golden bronze—outside orange. Classic form, the colour changes from dark to light pink, very interesting. Firm substance, strong growth, dark green foliage. Diseases normal with care, good hardiness. One of my 'darlings', beautiful in all stages but most beautiful when the bloom is just in the first stage; for about three to four days. Sprays laden with buds and blooms. 'Belle Époque' = "fine period" (before WW I), suitably named! (Last year for reporting this rose.)

**BILLY GRAHAM, HT** (Zary '98) (Honor x Color Magic). LP, 26-40 petals, light fragrance. Decker (1 pl 2 yrs AK): Large bloom, but slow to repeat and not rain -resistant.

**BLES BRIDGES, HT** (Kordes '96). DR. No reports.

**BLUSHING BEAUTY, HT** (Dykstra '00). W. Lemire (4 pls 1 yr 40" ON): Light shell-pink. Bloom 4-5", tall bud, double. Can be exhibition form, fair substance. Upright growth, medium-green glossy foliage. No disease. Strong, straight stem holds bloom very upright. Fall flower is much larger. Soft colour will water spot.

**BREATHLESS, HT** (Warriner '93 int '94) (Seedling x Chrysler Imperial). DP, deep cyclamen pink, 15-25 petals, fragrant. No reports. (Last year for reporting this rose.)

**BRIDE, HT** (Fryer '95). LP, light rose pink, 23-27 petals. Dyck (2 pls 1 yr 1m BC): Light pink, perfect form, long-lasting, very attractive, sweet fragrance. Classic form. Vigorous, bushy growth, deep green foliage.. Healthy, good hardiness. Bride is named after an old village on the Isle of Man. Visitors and guests consider Bride as one of the most beautiful.

**BROOKS' RED, HT** (Brooks '00). MR, Lemire (5 pls 1-2 yrs 50" ON): Medium-red to medium-to-dark pink, overlaid bright yellow. Bloom 4.5-5.5", double, exhibition form. Looks like a glowing fire. Substance strong on the plant. Upright growth, bright, large, foliage. No disease, fair hardiness. Once cut colour loss is very fast; bleaches and fades in refrigeration.

**CAJUN SUNRISE, HT** (Edwards '00 int '01). PB. Lemire (3 pls 1 yr 44" ON): PB, light pink outer light yellow. Bloom 4-5", double, mostly singles, some centres egg shaped. Exhibition form, very good substance. Upright growth, medium-green, semi-glossy foliage. No disease. Very bushy plant, good garden colour—when centre is good could get Queen.

**CALGARY, HT** (Twomey '97 int '98). DR. 45-50 petals. Shewchuk (AB): Lost this rose due to lack of snow cover, over a long winter, causing the soil to dry out.

**DIANA, PRINCESS OF WALES (THE WORK CONTINUES), HT** (Zary '98) (Anne Morrow Lindbergh x Sheer Elegance). PB,

luminous pink/creamy ivory blend, 26-40 petals, moderate fragrance. Clausen (1 pl 2 yrs 3' IL): PB, colour similar to Gemini 40 petals more cluster than single. Some exhibition blooms, average substance. Not vigorous, dark green foliage. Some black spot, average hardiness. Diana has not done well in our garden, seems to lack vigour.

**DISTANT SOUNDS, HT** (Webb '96). PB. No reports.

**DREAM ORANGE, HT** (Twomey '99 int '00) (Cherish x (Evening Star x Trumpeter)). OR, 26-40 petals, intense fragrance. Raven (1 pl 1 yr 80 cm AB): Bloom 7 cm, sprays of 1-2, bright salmon-orange colour, lots of flowers, good repeat. Decorative form, good substance. Very bushy, mid-green foliage. Some black spot and mildew. Must mulch for winter protection. This series is touted as very floriferous and disease-free. Lots of flowers yes, disease-free no. Dream Red is worse. Many nodding flowers. Touted as disease free but obviously not.

**DREAM RED, HT** (Twomey '99 int '00) (Esmeralda x Fireburst). MR, slight fragrance. Raven (1pl 1 yr 70 cm AB): Same comments as for Dream Orange, except that colour is dark red. Lots of black spot. Some flowers nodding instead of being upright.

**DREAM YELLOW, HT** (Twomey '99 int '00) ((Sonia x Prominent) x Whisky Mac). MY, 17-25 petals, intense fragrance. Ouellette (1 pl 1 yr 24" QC): Large 4', double, medium MY blooms which hold their colour well. Decorative form, good substance. Compact bushy growth, medium-green foliage. Healthy, first year will cover. Good plant, strong growth with average number of very beautiful blooms with good repeat. Purchased the plant last spring from T&T Seeds in Winnipeg.

**ELEGANCE, HT** (Meilland '96). PB. No reports.

**ENDURING LOVE, HT** (Pallek int '98). YB. No reports.

**ESPECIALLY FOR YOU, HT** (Fryer '96) (Seedling x Johnny Walker). MY, bright mimosa yellow, 35-40 petals, very fragrant. Decker (1 pl 4 yrs AK): Nice colour, slow to repeat, did mildew. Shewchuk (1 pl 3 yrs 4' AB): Medium yellow, 4" blooms, 35-40 petals, always in bloom. High-centred exhibition form, good substance. Neat upright growth, dull medium-green foliage. No disease. needs winter protection. Would like to get a few more plants.

**FLORA DANICA (GARDEN NEWS) (SPELLBOUND), HT** (Poulsen '96). OB. Broks (1 pl 1 yr 3' ON): Orange—brilliant rich colour! Deep apricot. Gorgeous bloom. 30+ petals. Exhibition form, excellent substance. Narrow upright branches. Shiny, glossy, rich leaves. Disease-resistant. Won 1st Prize at the York Rose Show with this gorgeous bloom. Great fragrance. A real winner! I love the

deep apricot colour and the rich, shiny foliage. Great cutting rose.

**FLORENCE MAYER, HT** (Singer '98) (Great Scott x Headliner). W, white and pink blend/reverse white, 26-40 petals, slight fragrance. Clausen (3 pls 4 yrs 4-5' IL): Average 30+ petals. Displays exhibition form, large blooms, very good substance. A good, vigorous grower, attractive dark-green foliage. Disease-resistance good, hardiness good, a good solid cultivar to grow. Last year (2000), this variety displayed more blooms. The year 2001 was very hot and dry.

**FORTUNE TELLER, HT** (Warriner & Zary '93 int '95) (Seedling x Heirloom). M, deep mauve-purple, 26-40 petals, very fragrant. Decker (1 pl 6 yrs AK): It is hard for me to discard productive roses, especially fragrant ones, BUT!!—not one for cool climates with July/ August light rains.

**FULL SAIL (LAND OF THE LONG WHITE CLOUD) (LONG WHITE CLOUD), HT** (McGredy '98 int '99) (Sport of 'New Zealand'). W, 26-40 petals, intense fragrance. No reports.

**GEMINI, HT** (Zary '99 int '00) (Anne Morrow Lindbergh x New Year). PB, cream blushing coral pink, 25-30 petals, sweet fragrance, AARS 2000. Clausen (7 pls 2 yrs 2.5-5' depending upon plant and age IL): Bloom 25-30 petals, moderate fragrance, usually one bloom per stem. Large, exhibition form, can measure up to 5" in diameter. Good substance. Attractive bush, well-shaped. Attractive, dark green, glossy, foliage. A regular spray programme is essential to prevent disease and winter protection of the bud union is a must. Rosarians will agree, Gemini has a home in most gardens. Several of my Gemini plants had dieback to bud union but recovered later on. A word to the wise—many rosarians remove rose plants too soon upon assuming they are dead. Give your plants a chance in the spring to start growing. Decker (1 pl 2 yrs AK): Healthy, high-centred, nice colour. Somewhat rain-resistant. Shewchuk (1 pl 2 yrs 3' AB): Large 5" blooms, 25-30 petals, very good repeat. High-centred exhibition form, good substance. Strong upright growth habit. Large, dark, glossy foliage. No disease, needs winter protection. Has done well for two years now.

**GOLD HEART (HEART OF GOLD) (HEAVENLY GOLD), HT** (McGredy '98 int '95) (Solitaire x Remember Me). DY, 17-25 petals, strong fragrance. No reports.

**GRAND GALA, HT** (Meilland '95). DR, thornless. No reports.

**HARLEQUIN (DORANDI) (HARLEKIN), HT** (Kordes '98 int '96) (Prima Ballerina x Peace). M, lavender pink/white reverse, 26-40 petals, fragrant. Decker (1 pl 2 yrs AK): Medium mauve with white reverse. Fragrant, healthy and rain-resistant.

**HARRY OPPENHEIMER, HT** (Kordes '96). DY, slight

fragrance. No reports.

**HEAVEN, HT** (Warriner '93 int '95) (Honor x First Prize). W, ivory/light pink blend, 26-40 petals, very fragrant. No reports.

**HERMAN STEYN, HT** (Kordes '94). RB, 40+ petals. No reports. (Last year for reporting this rose.)

**HONEST RED, HT** (Wambach '91 int '95) (Seedling x Sea Pearl). MR, 26-40 petals, intense fragrance. No reports.

**ICE BREAKER, HT** (Bridges '94) (Thriller x Just Lucky). LP, 30+ petals, intense fragrance. No reports. (Last year for reporting this rose.)

**INTREPID, HT** (Perry '98 int '99). DR, 40 petals, moderate fragrance. No reports.

**JEAN BAKER, HT** (Edwards '98) (Crystalline x Classic Touch). W, 26-40 petals, intense fragrance. No reports.

**JEAN GIONO (ROMANTIC MOMENTS), HT** (Meilland '98 int '94) [(Yakimour x Landora) x Graham Thomas]. YB, 26-40 petals, moderate fragrance. Raven (1 pl 2 yrs 90 cm AB): Bloom 10 cm wide, sprays of 1-2, rich rich golden yellow, very double, can be bull-nosed. Decorative form, fair substance. Bushy growth, light green foliage. Some mildew, must mulch for the winter. Some confused centres. (Last year for reporting this rose.)

**JULIE Y (JULIE YOEELL), HT** (Harkness '94) (Silver Jubilee x Just Joey). OR, strong fragrance, Orleans GM 1997. No reports. (Last year for reporting this rose.)

**KEVIN, HT** (Twomey '97). DP, mauve-pink, 58 petals. Shewchuk (1 pl 4 yrs 3' AB): Bloom 4", lots of bloom, good repeat, light fragrance. High-centred exhibition form, very good substance. Dark green, glossy, foliage. No disease, needs winter protection. Fifty percent loss in vigour due to lack of snow cover.

**LACINATION, HT** (Twomey '97). MP, 24-28 petals. Shewchuk (1 pl 4 yrs 3.5' AB): Bloom 4-5", good repeat, lots of bloom. Cupped beautifully formed, good substance. Vigorous growth, no disease. Large dark glossy foliage. Needs winter protection.

**LeANN RIMES (CINDY) (PERCEPTION), HT** (Harkness '97 int '99) (Dr. Darley x Sweetheart). PB, white, petals edged pink, 30 to 35 petals, moderate fragrance. Clausen (1 pl 3 yrs IL): Well-shaped blooms of a soft pink/yellow. 30 petals, some fragrance. Grew well the second year. Glossy, dark green foliage. Demanded a regular spray program. My Leann's succumbed, but sometimes there are unknown reasons why! There were once four, then one, and now none. I am not condemning the cultivar except that they did not survive in my garden.

**LEONIDAS, HT** (Meilland '95). RB. Semsch (1 pl 1 yr low BC): Red blend similar to Buffy St. Marie, but darker. First flush



beautiful, lots of blooms—then very slow reblooming. Good form, fair substance. Growth could be better, fair foliage. Disease-resistance good. Hardiness? A beautiful rose, but I hope I get a better, bigger bush next summer and more blooms.

**LIONS INTERNATIONAL, HT** (Fryer '98). DY. Somerville (1 pl 1 yr 3' ON): Exhibition HT, not many petals. Not much bloom in the first year. Good substance. Tall growth. Dark, shiny green, foliage. Some black spot. Hardiness unknown. Will reserve opinion until next year.

**LYNN ANDERSON (OH MY GOD), HT** (Winchel '93 int '95) (Seedling x Gold Medal). PB, creamy white/edged raspberry pink, 26-40 petals, slight fragrance. Chambers (1 pl 4 yrs 3' ON): Classic form, but a very stingy bloomer in my garden. Comeau (1 pl 3 yrs 2.5' NS): White/dark pink, some fragrance, medium sized blooms this year. Weak growth, some black spot. Good hardiness with cover. A complete turnaround; first flush had three of the most beautiful blooms just in time for the Rose Show and won Best Three's and Best in Show, later blooms were not very good. Fades very fast and blooms don't last. Decker (1 pl 7 yrs AK): Smallish bloom. Had healthy foliage here. Nice colour, and fair bloom production. Rain-resistant.

**MADIBA, HT** (Kordes '96). M, thornless. No reports.

**MARGARET WASSERFALL, HT** (Kordes '94). W. No reports. (Last year for reporting this rose.)

**MAVRIK (MAVERICK), HT** (Eddie Edwards '00 int '99). PB. Lemire (8 pls 1-3 yrs 40" ON): PB, white with pink edges. Double, cupped, best left on the plant to open, holds. Exhibition form, strong substance. Upright growth, large bright foliage. No disease, good hardiness. Spring blooms are mostly exhibition form, slow repeat. Fall blooms hold better colour under bloom protectors.

**MIDAS TOUCH, HT** (Christensen '92 int '94) (Brandy x Friesensohne). DY, 15-25 petals, musk fragrance, AARS '94. Decker (1 pl 7 yrs AK): Lots of colour, but opens quickly. One of the better recyclers. Rain-resistant. (Last year for reporting this rose.)

**MOONSTONE (CADILLAC DeVILLE), HT** (Carruth '98) (Crystalline x Lynn Anderson). W, white/pink edging, 26-40 petals, slight fragrance. Clausen (5 pls 3 yrs 4-5' IL): White/pink blush., 30-35 petals, some fragrance, profuse bloomer. Mostly exhibition form, very good substance. Very good growth habit, attractive green foliage. Do not let your spray program falter. Hardiness very good. Visitors stand up and take notice when viewing Moonstone. This variety seems to do well in warm weather, so check with rosarians in your area for performance.

Raven (1 pl 2 yrs 70 cm AB): Blooms 10 cm, some nodding heads, singles, white with faint blush of pink along the edges. Exhibition form, good substance. Bushy growth, medium-green foliage with red flushes. No disease, must mulch for hardiness. A good flush of flowers, long-lasting blooms.

**NICOLE, HT** (Kordes '98). RB. Lemire (6 pls 1 yr 30" ON): RB, very dark red with silver reverse. Bloom double, 4.5", medium height, with perfect circle outer edge. Exhibition form, strong substance. Spreading growth habit, dark glossy foliage. No disease, good hardiness. Almost black red, thick petals with silver reverse. Will get judges' eye. Could repeat faster.

**NICOLETTE (LEANNA), HT** (Taschener '95). AB. No reports.

**OKSANA, HT** (Singer '95). PB. Clausen (1 pl 5 yrs 2.5' IL): Fat buds, not an exhibition, but makes a wonderful garden rose. Dark-green foliage, minor black spot, good hardiness. This variety may not be the best in the garden, but will remain for the colourful blooms. Again, growth has been a problem, and tree roots may be the cause.

**OPENING NIGHT, HT** (Zary '98) (Olympiad x Ingrid Bergman). DR. bright deep red, 25-28 petals, slight fragrance, AARS '98. Clausen (2 pls 4 yrs 4.5' IL): Intense red, 25-30 petals, not fragrant. Strictly a garden variety, excellent grower. Beautiful, well-placed foliage. Like most cultivars it requires a regular spray programme. Good hardiness. Genetics plays an important part of all good varieties. Opening Night is a cross of two of the good red HT's—Ingrid Bergman and Olympiad. We have used both of these cultivars in our hybridizing programme. Decker (2 pls 4 yrs AK): Much better bloom production—nice colour and a fair rebloom. Raven (1 pl 4 yrs 70 cm AB): Sprays of 1-3, 10 cm wide bloom. Luscious, luscious red, like crushed velvet. Nicer colour than Olympiad. Exhibition form, good substance, Bushy growth, mid-green foliage. No disease, mulch for winter. I love the colour, something about the richness of it. Shewchuk (1 pl 4 yrs 3' AB): Bloom 4.5", 25 petals, non-fading, long-lasting, light fragrance, good repeat. High-centred exhibition form, very good substance. Neat, shapely growth. Large, thick, med-green, semi-glossy foliage. No disease, needs winter protection. Has done very well since planting it four years ago.

**OPULENCE, HT** (Zary '97). W. Lemire (6 pls 1-4 yrs 4' ON): White, double, medium to large cupped blooms, borne as singles and small clusters. Exhibition form, strong substance. Upright growth, bright medium-green foliage. No disease, very hardy. One of the best florist roses for the garden and exhibition. Blooms large, high centres, no water spots—long stems—winter hardy.

**OUT OF AFRICA, HT** (Kordes nd int '99?). OB (AB). Raven (1 pl 1 yr 80 cm AB): Orange darker towards the edges and creamier orange in centre, 10 cm. Exhibition form, good substance. Bushy growth, mid-green foliage. Touch of mildew, must mulch for winter. Very rich, orangey colour

**PAT'S CHOICE, HT** (Kordes '96). OR. Lemire (10 pls 1-6 yrs 3' ON): Pink-orange, bright. Bloom 4", double, comes in large clusters much like a polyantha. Almost exhibition form, strong substance, spreading growth habit, very bright foliage. No disease, strong hardiness. The colour and production makes this rose head and shoulders above most.

**PERFECTLY RED, HT** (Zary '99) (Seedling x Love). MR, 26-40 petals, slight fragrance. Decker (1 pl 2 yrs AK): Nice colour and fragrance. Relatively healthy and rain-resistant. Could bloom more. Lemire (10 pls 1-3 yrs 38-50") ON: Spring medium red, fall very dark. Vibrant red blooms, double, perfect centre. Exhibition form, strong substance. Spreading upright growth, large bright foliage. No disease, good hardiness. At times looks close to Veterans' Honor, then just gets better—darker, with superior form.

**RAPHAELA, HT** (Tantau '94). MR, medium red/orange. No reports. (Last year for reporting this rose.)

**RECONCILIATION, HT** (Harkness '95) (Basildon Bond x Rosemary Harkness). AB, apricot, very fragrant. No reports.

**REGINA, HT** (Twomey '97). PB, light sweet fragrance. Porter (1 pl 5 yrs 14" SK): Light pink, not as red as others reported last year. Double bloom, borne in small clusters, sparse, lightly fragrant. Exhibition form, excellent substance. Low bushy growth, dark green foliage. No disease, needs good winter protection, A lovely rose, but not very vigorous and always dies back severely in winter. Few thorns. Available again in 2002 (T&T Seeds), the first time since '97, and I may order another to see if I can get one with more vigour. Growing in Regina, 'Regina' ought to thrive!

**RENAISSANCE (BORN AGAIN) (CAMEO PERFUME), HT** (Harkness '94). W, white with pale pink, 23-37 petals, very fragrant, Belfast FA 1995, Glasgow FA 1996. No reports. (Last year for reporting this rose.)

**RITA MACNEIL, HT** (McGredy '94) (Howard Morrison x Mme Delbard). OR, vibrant orange-red, 26-40 petals, slight fragrance. No reports. (Last year for reporting this rose.)

**ROSIE O'DONNELL (NEW ERA) (NINETY-NINER) (WIN-WIN), HT** (Winchel '99 int '98). RB, velvety scarlet red with creamy yellow reverse, 30-35 petals, slight fragrance. Raven (1 pls 1 yr 1m AB): Bright red with yellow reverse, and yellow in centre of the petals. Exhibition form, good substance. Upright growth,

mid-green foliage, no disease, mulch for hardiness.

**ROYAL WEDDING, HT** (Zary '98) (Impatient x Amber Queen). AB, pink amber, 41 petals, moderate fragrance. No reports.

**SAINT PATRICK (ST. PATRICK), HT** (Strickland '91 int '95) (Brandy x Gold Medal). YB, greenish yellow, 35-36 petals, AARS C96. Clausen (3 pls 3 yrs 3-4' IL): High centre, light fragrance, unique bloom colour. Form and substance very good. Well-shaped bush, medium-green foliage. Very good disease- resistance. Hardiness very good, I plant all of my bud unions 2-3" below ground level. I purchased my three St. Patricks from three different sources and they are all wonderful plants. The best comment I can make—It is a good solid rose. A St. Patrick floating in a bowl at a rose show can attract attention. Comeau (1 pl 2 yrs 2' NS): Does not like the cold or the sea breeze, hates rain. Good growth habit and foliage. Hardiness good with cover. Blooms did not open again this year, gave it to a friend in the Annapolis Valley and hope it does better for her. Someday I will try again. Decker (1 pl 6 yrs AK): Buds green and open yellow. Long-lasting blooms, non-fading. More rain-resistant than most heavy substance roses. Shewchuk (1 pl 6 yrs 3' AB): Greenish yellow, 4-5" blooms, 35 petals, long-lasting, fade-resistant, good repeat. High-centred exhibition form, excellent substance. Upright vigorous growth, medium-green, glossy foliage. No disease, needs winter protection. Lost 75% of its vigour, but after planting it in a large pot, it recovered considerably. **SASKATOON, HT** (Twomey '97). AB, bluish smoky rose, 28-32 petals. Shewchuk (1 pl 4 yrs 4' AB Bluish, smoky rose. Bloom 4", 30 petals, good repeat. High-centred form, good substance. Discarded, did not like its colour.

**SECRET, HT** (D. Tracy '92 int '94). PB, light pink, edged deep pink. 30-40 petals, fruity fragrance, AARS '94. Chambers (1 pl 4 yrs 2.5' ON): Blooms light pink with darker edges. Classic shape, nice rose but blooms are on the small side. Decker (2 pl 8 yrs AK): A nice rose, but needs rain protection. Nice scent and relatively healthy. Medium recycling and bloom production. (Last year for reporting this rose.)

**SEDUCTION, HT** (Meilland '99). MP. Lemire (3 pls 2 yrs 46" ON): MP, peachy-orange. Blooms high-centred, medium size, petals reflex well, double. Fifty percent are exhibition, strong substance. Upright growth habit, large matte foliage. No disease, good hardiness. Winner for garden display, repeats fast, bloom size in heat is small. Colour is good for collections.

**SENSATION, HT** (nd int '99?). OB, LP. Lemire (3 pls 2 yrs 40" ON): OB, buff-tan. Large, double, petals wide, strong. High-centred form, very good substance. Medium-upright growth, bright large

foliage. No disease, good hardiness. Bloom brown at first light—by last light it is white, even when bloom covered.

**SIGHT SAVER (SIGHTSAVER), HT** (Fryer '97). LP, pink to pearl cream, double, fragrant. No reports.

**SIGNATURE (JUANITA), HT** (Warriner '98 int '96). (Honor x First Federal Renaissance). DP, 30 petals. Clausen (9 pls 4 yrs 4-4.5' IL): Deep pink/cream combination. Reverse side of bloom a lighter pink/cream combination. Some fragrance. Large exhibition blooms, up to 40 petals, mostly one bloom per stem. Good substance. A very good well-shaped bush and quite vigorous. Foliage dark green with some glossy shine. Some black spot, your garden deserves a timely spray program for fungus problems. I use a little extra winter protection. Signature budded on the correct rootstock, will take up residence in rose gardens for years to come. Fall blooms are a sight to behold. I have added two Brooks' Red, a sport of Signature, which displays a more reddish bloom. Enough said.

**SPECIAL OCCASION, HT** (Fryer '95). OB, 25-30 petals, fragrant, Genoa GM '95. Dyck (1 pl 1 year, 60 cm BC): Coppery-apricot, nice full bloom, urn-shaped bud, strong fragrance. Good form, long-lasting substance. Strong bushy growth, dark green foliage, no disease. A very lovely rose!

**SPICE TWICE, HT** (Zary '98 int '97) (Spirit of Glasnost x Kardinal). OB, 26-40 petals, moderate fragrance. Decker (2 pl 2 yrs AK): Still evaluating, so far not much bloom, not rain-resistant. Light to medium scent, mildews.

**STAINLESS STEEL, HT** (Carruth '91 int '96) (Blue Nile x Silverado). M, silvery grey lavender, 26-40 petals, fragrant. No reports.

**STANDING OVATION, HT** (Tucker '99 int '98) (Elizabeth Taylor x White Masterpiece). RB, 41 petals, slight fragrance. Lemire (4 pls 2 yrs 46" ON): Ice-white with bright red tips. Great colour, 4.5" exhibition blooms, double, centre holds. Strong substance. Upright growth, bright foliage. Can mildew, fair hardiness. Textbook form. Plant slow to start in cool spring—a large bloom in the fall. Can go to the top with colour and form.

**STARSHINE (TULSA) (SHINING STAR), HT** (Perry '96). LP. No reports.

**STEPPIN' OUT, HT** (Bridges '95). MP, soft medium pink, 26-40 petals, fragrant. No reports.

**SUE HIPKIN (SWEET REVELATION) (LADY JANE GREY), HT** (Harkness '97). AB. No reports.

**TEMPIE LEE, HT** (Whittington '91 int '98, Elizabeth Taylor Sport). PB, 26-40 petals, slight fragrance. No reports.



**THANDI, HT** (int '00). DP, deep pink to light red. No reports.

**TIMELESS, HT** (Zary '98 int '97) (Spirit of Glasnost x Kardinal). DP, rose-red, 17-25 petals, slight fragrance, AARS '97. Clausen (7 pl 4 yrs 3.5-4' IL): Double, 25 petals, repeat bloomer. Well-shaped blooms, good substance. Vigorous growth, stem length could be improved. Nice dark green foliage. This variety remained free from fungus problems. Lost one plant last winter. Very nice garden rose, profuse bloomer. A bouquet of Timeless in your living room is a welcome sight. Decker (1 pl 3 yrs AK): A nice rose, steady performer. Nice colour and rain-resistant.

**TOWER BRIDGE, HT** (Harkness '95). DP, 60 petals, fragrant. Shewchuk (1 pl 3 yrs, 3' AB): Bloom 4", very double, long-lasting, very fragrant. Medium to low-centred, very good substance. Neat upright growth, dull, medium-green foliage. No disease, needs winter protection. There is no need to bend over to detect its fragrance.

**TRAVIATA, HT** (Meilland '98 int '97) [(Porta Nigra x Paolo) x William Shakespeare]. DR, 41+ petals, slight fragrance. Raven (1 pl 2 yrs 1.2m AB): Very double, 11 cm wide bloom, flat, clusters of 1-5, rose—lavender—pink. Decorative form, excellent substance. Upright growth habit. Glossy, dark green foliage. No disease, must mulch for winter. Very strong growing, strong stem. Holds up well, very full, flat flowers. Could have more flowers.

**VANCOUVER, HT** (Twomey '98). LP, 12-15 petals, very fragrant. No reports.

**VETERANS' HONOR (FIVE ROSES ROSE) (LADY IN RED) (CITY OF NEWCASTLE BICENTENNARY), HT** (Zary '99 int '95) [Show-stopper x (Seedling x Royalty)]. DR, 26-40 petals, slight raspberry fragrance. Clausen (6 pls 2 yrs 4-6' IL): Average 35 petals. Awesome, long-lasting, most often one bloom per stem., a strong stem to carry the bloom. Strictly exhibition type bloom. Very good substance. Feed and water Veterans' Honor and watch the results. Foliage a nice clear green. Had a trace of black spot, but mostly quite clean. Survived the first winter. Just sit back, close your eyes and dream of an ideal red bloom. Veterans' Honor will fit this description. I find it takes a year for this variety to get established, but well worth the wait. Some of our readers may say my reports are positive comments only, but I report on roses that are deserving. Yes I have planted some duds. As this rose matures, it will be around for years to come.

**WARM WISHES (SUNSET CELEBRATION) (CHANTOLI) (EXOTIC), HT** (Fryer '99 int '94) [Pot o' Gold x (Seedling x Cheshire Life)]. AB, soft apricot, 42-66 petals, very fragrant, Belfast GM 1996, Golden Rose of the Hague 1997, AARS '98.

Bishop (2 pls 1 yr 4' ON): Double, 44 petals , good repeat. Upright growth, dark-green foliage, no disease. Not an exhibition rose, but good colour for the garden. Clausen (2 pls 2 yrs 3.5'. IL): Apricot blend, ample petals (35-40), plump bud, some fragrance. Very double, large, well-formed, good substance. Very good growth habit. Large, well-shaped, medium-green foliage. Disease-resistance is very good. Cold weather will set plant back. The bloom colour adds to your garden. Comeau (1 pl 3 yrs 3' NS): Smallish, beautiful salmon-pink blooms that last and last. Does not fade, likes the rain and cool. Very good substance, good growth habit, and foliage. No disease and hardy with cover. Beautiful name, beautiful rose. Lots of blooms to cut for bouquets and to give away to friends; am ordering another. Decker (2 pls 4 yrs AK): A nice rose and reasonably rain-resistant for so many petals. Productive, not exhibition. Dyck (6 pls 1-4 yrs 1.3m BC): Salmon-pink, large bloom with high centre, very nice form, borne singly and in clusters. Broad petals, good HT form, long-lasting. Growth is tall, bushy and strong, with abundant foliage. No disease, very good hardiness. One of the very best roses amongst all of them! I was there in Den Hags, as Mr Gareth Fryer received the First prize for Warm Wishes. All the rose lovers cheered and agreed! Mychaluk (1 pl 3 yrs medium height AB): I felt it was more a garden rose, but in our dry, dry heat last summer, it changed my mind. Exhibition form, cut it tight because it can blow fast. Excellent substance. Growth is straight up, well-spaced, adequate foliage. No disease, good hardiness. With our last two winters being so warm and so little snow this rose suffered die-back because of our Chinooks—but it still bloomed well. Raven (1 pl 4 yrs 80 cm AB): Bloom 10 cm wide, 1-4 sprays, rich glowing apricot with cream edges, fading to soft pink. Exhibition form, very good substance. Bushy growth, mid-green foliage. No disease, must mulch for winter. Good first flush and good repeat. I love the colours on this one. Very long-lasting flowers. Shewchuk (1 pl 5 yrs 3' AB): Bloom 4.5-5", very fragrant, good repeat. Decorative form , medium substance. Large, medium-green, matte foliage. No disease, needs winter protection.. Stanton (1 pl 1 yr ON): Very pretty , warm peach. Exhibition form, long bud, good substance. Spreading growth, large med-green foliage. No disease. Definitely looks promising. Webster (1 pl 1 yr 3' ON): Nice, show type. Disappointing, after all the hype—maybe it is in too shady a spot. Mine is not healthy or gorgeous. (Last year for reporting this rose.)

**WHITE SPIRE, HT** (Kordes '94). W. No reports. (Last year for reporting this rose.)

## GRANDIFLORAS

**BENITA, Gr** (Dickson '94 int '95) [(Korresia x Bright Smile) x seedling]. DY, golden yellow, Dublin GM 1992. No reports.

**CANDELABRA, Gr** (Zary '99 int '98) (Tournament of Roses x Seedling). OB, coral-orange, 20-25 petals, tea fragrance, AARS '99. Decker (1 pl 3 yrs AK): Nice bright colour. Could have more bloom production. Healthy.

**CARIBBEAN, Gr** (Kordes '92 int '94) [Mercedes x (New Day x Seedling)]. AB, apricot orange/yellow blend, 45-50 petals, light fragrance. Decker (1 pl 8 yrs AK): Balls and mildews in our cool, misty climate. Slow to recycle. Attractive colour. (Last year for reporting this rose.)

**CRIMSON BOUQUET, Gr** (Kordes '00, int '99) (Bad Fussing x Ingrid Bergman). DR, 20-25 petals, sweet fragrance. AARS 2000. Decker (1 pl 2 yrs AK) Mildews for me and not rain-resistant. Small clusters and so-so colour. Maybe next year? Dyck (1 pl 1 yr BC): Bright red, mostly in clusters, very nice form on long stems, long-lasting. Perfect HT form, excellent substance. Average, bushy growth. Lots of semi-glossy foliage, healthy. Will get a few more Crimson Bouquets (if I can find them!)—laden with perfectly formed blooms from summer up to now (mid-November). Freeman (1 pl 1 yr 2' ON): Clear red blooms medium-sized, one to a stem. Good HT form, excellent substance, very short so far. One of the nicest reds I have seen—hope the bush improves. Raven (1 pl 2 yrs 60 cm AB): Bloom 10 cm wide, sprays of 1-2, rich deep velvet-red. Ultimate form is flatter and not as good a shape as Opening Night. Exhibition form, very good substance, bushy, glossy green foliage. Some black spot, must mulch for winter. Excellent colour. Shewchuk (1 pl 2 yrs 2.5' AB): Blooms 3-3.5", 20-25 petals, non-fading, long-lasting, very good repeat, one bloom on long stems. Medium-high exhibition form, very good substance. Round, upright growth. Thick, dark, semi-glossy foliage. No disease, needs winter protection. Single flower on long stems make it very good for cutting. Has done well again this year.

**FAME (FAME!), Gr** (Zary '98) (Tournament of Roses x Zorina). DP, shocking pink, 26 petals, slight fragrance. AARS '98. Clausen (2 pls 3 yrs 3' IL): Intense pink, A great garden variety, but can be exhibition, and on occasion will reach the show table. Good, vigorous grower. Dark green foliage. Some fungus, very hardy. Decker (2 pls 4 yrs AK): The best of the newer Grandifloras. Very long-lasting on the plant. Rain-resistant, and medium recycle. Shewchuk (1 pl 3 yrs 2.5' AB): Dark pink, 4-5" bloom, 26-30 petals, non-fading, blooms all summer. Med-high centres, excellent substance. Low, sturdy growth. Large, dark, glossy foliage. No

disease, winters well with my method of planting and 12" peat moss cover.

**GLOWING PEACE, Gr** (Meilland '99 int '01) (Sun King x Roxane). YB, yellow and orange blend, 26-40 petals, slight fragrance, AARS 2001. Laberge (10 pls 1 yr 1.2m QC): Blend of amber, orange, pink, decorative form, borne in clusters, 35-40 petals, fragrant. Good substance; large, shiny green foliage. Very ornamental foliage with young burgundy shoots. Colour intensifies in cool conditions (June-September). Raven (1 pl 1 yr 90 cm AB): Sprays of 1-3, 8 cm wide bloom. Orange buds with a touch of pink, opens to same, fading to a combo of apricot-pink-yellow. Good repeat, good flush each time. Exhibition form, good substance. Good, bushy growth, glossy-green foliage. No disease, must mulch for the winter. Shewchuk (1 pl 1 yr 4' AB): Yellow-orange blend, very attractive. Bloom 4", 38-42 petals, in bloom all summer, very good repeat. Medium-high, exhibition form, medium substance. Round growth habit, large, dark, glossy foliage. No disease. Petal substance not as good as the original Peace. The bush makes a spectacular show in the garden. Hope it continues to do as well in the future. If not, it has already more than paid for itself in the number of roses it has produced.

**HEART O GOLD (HEART OF GOLD) (ROSE OF NARROMINE), Gr** (Dykstra '99 int '97) (Broadway x Gold Medal). MY, deep gold, 35-40 petals, fruit and rose fragrance. No reports.

**MELODY PARFUMÉE (MÉLODIE PARFUMÉE), Gr** (Dorieux '98, int '95) (Diorescence x Stephen's Big Purple). M, lavender plus, lighter reverse, 26-40 petals, intense damask fragrance, Baden-Baden GM & FA '95, Bagatelle GM & FA '95. Decker (1 pl 2 yrs AK): Medium clusters, and very fragrant. Nice mid-mauve. Medium bloom production, relatively healthy.

**OCTOBERFEST (LANTERN), Gr** (McGredy '98 int '96) (Louis Gardner x New Zealand). OB, very double, fruity fragrance. Raven (1 pl 2 yrs 60 cm AB): Flowers 10 cm, apricot in the centre with cream and yellows, outer petals flesh fading to flesh-orange. Bushy growth, glossy, mid-green foliage. Touch of black spot. Must mulch for winter.

**REBA McENTIRE (SPIRIT OF HOPE), Gr** (McGredy '98 int '97) [(Howard Morrison x Red Perfection) x Maiden Voyage]. OR, 17-25 petals, slight fragrance, NZ Gold Star of the Pacific '94. No reports.

**VIOLA LOUGHEED, Gr** (Larry Lougheed '97 CAN) (Pristine x Peter Frankenfeld). PB, deep rose/lighter base and reverse, 26-40 petals, moderate fragrance. No reports.

## FLORIBUNDAS

**AMELIA FLEMING, F** (Fleming '95 int' 94 CAN) (Marchenland x Bambula). MP, medium pink with pink tones, 5 petals, moderate fragrance. (Fleming 1 pl 6 yrs 1.2-1.4m ON): MP, single, 5-15 flowers per cluster. Decorative bloom, with numerous petaloids, pink tones, prominent stamens, moderate fragrance. Decorative form, good to very good substance. Upright growth, medium-green, matte foliage. No disease, good to very good hardiness. A generous bloomer.

**ATCO ROYALE, F** (Fryer '94). MY, 26-28 petals. Decker (2 pls 6 yrs AK): Short, healthy plant. Medium recycling and rain-resistance. Shewchuk (1 pl 5 yrs 2.5' AB): Blooms 3.5', 26-28 petals, long-lasting, stands up well in rain and sun, good repeat. Cupped form, very good substance. Well-shaped growth habit. Dark, glossy foliage, no disease. Needs winter protection. (Last year for reporting this rose.)

**BETTY BOOP, F** (Carruth '99 int '97) (Playboy x Picasso). RB, rosy/edged yellow at base, 6-12 petals, fruity fragrance, AARS '99. Decker (2 pls 3 yrs AK): Lots of bloom, attractive colours. Healthy and rain-resistant. Medium recycle. Raven (1 pls 3 yrs 90 cm AB): Sprays of 3-4. 8 cm wide, white with wide rose-red band fading to white. Decorative form, good substance. Bushy growth, mid-green foliage. Some black spot, must mulch for the winter. Unusual combination, an eye catcher. In cooler weather the white turns to yellow, very long-lasting. Shewchuk (1 pl 3 yrs 3' AB): Red with a yellow base, 3" bloom, 6-12 petals, produced singly and in sprays, always in bloom. Flat form, very good substance. Strong, upright growth. Medium green, glossy, foliage. No disease, needs winter protection. Everyone loves Betty Boop.

**BLUEBERRY HILL, F** (Carruth '99 int '97) (Crystalline x Playgirl). M, medium lilac/golden stamens, 5-11 petals, fragrant. No reports.

**BLUSHING BRIDE, F** (Harkness '98). LP. Baillie (1 pl 1 yr 30" QC): Light pink. Fully open form, good substance, disease-free. This was a very pleasant rose. Hope it will improve another year.

**BOB GREAVES, F** (Fryer '98). OB. Semsch (1 pl 1 yr low BC): Salmon, semi-double, petals are frilly when open, very good substance. Excellent foliage, no disease. This is a rose with lots of promise. It did extremely well this summer. Constantly in bloom, and no black spot so far—and this summer was bad despite spraying.

**BRASS BAND, F** (Christensen '93 int '94) (Gold Badge x Seedling). AB, deep apricot/yellow eye and reverse, 30-35 petals, slight fruity fragrance. AARS '95. Dyck (1 pl 3 yrs Tree BC):



Apricot/brass/copper. Round and frilly, shimmering in all shades from peach to apricot to melon! Nice open form, excellent substance. Strong growth, good foliage, healthy, good hardiness. Very attractive as a Tree (standard), always laden with long-lasting blooms, fruity fragrance. Good cut flowers. Shewchuk (1 pl 6 yrs AB): Has succumbed to our "no snow" 2000-2001 winter! (Last year for reporting this rose.)

**BRIDAL SHOWER, F** (Zary '98) (Seedling x Sunflare). LP, 26-40 petals, slight fragrance. No reports.

**BRILLIANT PINK ICEBERG, F** (Weatherly '99) (sport of Pink Iceberg). PB, deep pink, reverse white, 17-25 petals, moderate fragrance. Clausen (2 pls 1 yr 2.5' IL): Pink/cream blend, 20 petals average. Certainly this bloom is eye-catching. Good form, and growth habit. Medium green foliage, no disease problems. A sport of Iceberg, I am expecting many positive things from this variety once established. You should never expect miracles from a first year cultivar as they need to get rooted. Raven (1 pl 1 yr 85 cm AB): Pink buds open to a wash of deep pink and light pink. Fades to white. Blooms 6 cm wide, decorative form, good substance. Vigorous, bushy growth. Medium green foliage, some gloss. Some mildew, must mulch for hardiness. Interesting form of Iceberg, very vigorous. Like the pink colours, bit of a shame it fades to a dirty white.

**BUFFY SAINTE-MARIE, F** (Mander '96 int '98 CAN) (June Laver x Rubies 'n' Pearls). OP, hot glowing pink, yellow stamens, semi-double - 15-25 petals, slight fragrance. Semsch (1 pl 1 yr low BC): Glowing hot-pink, classic HT form. Excellent substance, growth habit and foliage. Hardly any disease, excellent hardiness. Same comment as last year—a really beautiful, excellent rose. I wish it would grow a little taller; have to put it in front of the rose bed.

**CATHEDRAL SPLENDOUR, F** (Harkness '96, int '95). OP, (c/s coral and/or salmon in UK), 18 petals, mild fragrance. Decker (1 pl 4 yrs AK): Still evaluating. Nice colour, but poor production. Shewchuk (1 pl 5 yrs 2.5' AB): Coral and salmon, 4.5" blooms, 18 large petals, single blooms on long stems, great repeat, delightful fragrance. Cupped form, good substance. Upright, strong canes. Medium green, semi-glossy foliage. No disease, winters well with my method of planting and 12" of peat moss cover.

**CONQUEST, F** (Harkness '94) (Dame of Sark x Bright Smile). MY, 30 petals, light spicy fragrance. Decker (1 pl 7 yrs AK): LY, heavy clusters. Fairly healthy, rain-resistant, normal recycling. Dyck (1 pl 4 yrs 80 cm BC): LY, normal floribunda form, will not open willingly in wet weather—likes 'balling'. Very strong growth,

glossy, abundant foliage. No disease, good hardiness. A very attractive, healthy bush, but too many buds that are slow to open—most not at all. Undecided about this one. Shewchuk (1 pl 5 yrs 2' AB): MY, 2.5" bloom, double, light fragrance, good repeat. Informal form, good substance. Low, round growth. Medium green, glossy, foliage. No disease, needs winter protection. (Last year for reporting this rose.)

**EASY GOING, F** (Harkness '99) (Livin' Easy sport). YB, deep gold apricot, reverse same, 26-30 petals, fruity fragrance. Decker (1 pl 2 yrs AK): Same as last year; big flush of bloom—then nada. Nice colour and healthy.

**FRAGRANT APRICOT, F** (Zary '98 int '99) (Impatient x Amber Queen). AB, 26-40 petals, slight musk fragrance. No reports.

**FRANCOIS RABELAIS, F** (Meilland '98 int '96) [(MEI)chanso x MEI)folio) x KOR)lima]. MR, 41 petals, slight fragrance. No reports.

**GEORGE BURNS (GEORGE BURNS CENTENNIAL), F** (Carruth '96 int '97) (Calico x Roller Coaster). YB, striped red, cream and pink, 26-40 petals, moderate citrus fragrance. No reports.

**GOOD MORNING, F** (Fryer '95). OB, apricot/yellow. Decker (1 pl 5 yrs, AK): Not for rainy climes, will mildew. Shewchuk (1 pl 5 yrs 2' AB): Orange-apricot blend, 3" blooms, good looking, produced singly and in up to 4 bloom clusters, good repeat. Small, high-centred form, good substance. Small, weak growth. Medium green glossy foliage. No disease, needs winter protection. Somerville (1 pl 2 yrs 2.5' ON): Apricot blend, HT shape, not many blooms, 25 petals, not a good repeater. Medium green foliage, black spots, not hardy. Not a good grower for me, lost one in the first year. The flowers are nice, will keep trying.

**GUGLIELMO MARCONI, F** (Harkness int '96). OP, c/s coral and/or salmon in UK (not an official ARS colour). No reports.

**GUY DE MAUPASSANT, F** (Meilland '96 int '94) [(MEI)turaphar x Mrs. John Laing) x Egekov]. MP, 41-50 petals, very fragrant. No reports. (Last year for reporting this rose.)

**IRISH HOPE, F** (Harkness '98). LY. Somerville (1 pl 1 yr 3' ON): Not many blooms in first year, nice shape, exhibition form, solid substance. Good growth, medium green foliage. No black spot. Will wait for a year. Flowers lovely but not enough—first year and a dry spell. Maybe next year will improve.

**L'AIMANT (OXFORD) (VICTORIAN SPICE), F** (Harkness 1999 int '94) [Southampton x (Radox Bouquet x Margaret Merrill)]. MP, LP, 41-50 petals, fragrant, Paris FA 1991, Edland FA 1992. Freeman (1 pl 2 yrs 3.5' ON): Full, old-fashioned looking, fragrant, good substance. An excellent rose. Somerville (1 pl 5 yrs 4' ON):

Very pale pink, decorative, singly and in clusters, 20 petals, flowers on the small side. Good exhibition form, good substance. Tall, bushy growth. Shiny, medium-green foliage. No disease until fall, very hardy. Love the colour. Lots of bloom, mostly in clusters. Won best in Show in the Fall. Pale pink in my garden, disease-resistant until fall. I like this one! (Last year for reporting this rose.)

**LOVE POTION (PURPLE PUFF), F** (Christensen '93 int '95) (Seedling x Dilly Dilly). M, deep clear lavender, 26-40 petals, intense raspberry fragrance. Decker (1 pl 5 yrs AK): A "mildewer" and it could have better production and recycle of bloom, scented. Dyck (1 pl 3 yrs Tree ON): Deep mauve-wine red fading to grey. Crinkly petals, nice open semi-double blooms that last only a short time. Okay form, blows fast. Very strong growth. Deep, glossy, almost black foliage. Unhealthy, good hardiness. From far away this tree looks nice, but I will not cry if or when it perishes.

**MARMALADE SKIES (TANGERINE DREAM), F** (Meilland '99) ((Tamango x Parador) x Patricia). OB, 17-25 petals, slight fragrance, AARS 2001. Laberge (10 pls 1 yr 2' QC): Vibrant orange, in cascading clusters, 20-25 petals, slight fragrance. Decorative form, good substance. Compact growth, medium green foliage. Free flowering when established. Abundant foliage, young copper shoots make a nice contrast. Raven (1 pl 1 yr 1m AB): Double blooms in sprays of 3-8, good repeat, 7 cm wide, soft salmon-orange. Decorative form, good substance. Vigorous, very upright growth. Glossy, mid-green foliage. No disease, needs winter protection. Good first flush, some flowers nodding, salmon with a bit of a white centre. Tons of flowers.

**MICHAEL LEEK, F** (Fleming '95 int '94 CAN) (Liverpool Echo x Traumerei). OR, single, slight fragrance. No reports. (Last year for reporting this rose.)

**MRS. IRIS CLOW, F** (Harkness '93 int '94) (Memento x Princess Alice). LP, blush pink/light pink reverse, 28 petals, moderate spicy fragrance. No reports. (Last year for reporting this rose.)

**OCTAVIA HILL, F** (Harkness '93 int '95) (Armada x Compassion). MP, 75 petals, moderate damask fragrance. Chambers (1 pl 3 yrs 3' ON): Light pink, blah colour in hot weather, opens flat, fairly large blooms. Decorative form, poor substance in heat. Upright growth habit, hardy. It is supposed to have "exceptional" resistance to black spot, but not in my yard. I grow mine in a pot, and it produces several good flushes every year but it doesn't like hot weather as the petal edges brown in the heat.

**PEACEKEEPER (CORONATION) (UNITED NATIONS ROSE), F** (Harkness '94 int '95) (Dame of Sark x Bright Smile). PB, apricot-salmon, 30 petals, light spicy fragrance. Decker (2 pls 4

yrs AK): Nice rose, has everything but height. Shewchuk (1 pl 5 yrs 2.5' AB): Apricot-salmon, 3" blooms, light fragrance, good repeat. High-centred exhibition form, good substance. Upright, well-shaped growth. Medium green, glossy foliage. No disease, needs winter protection.

**PINK ICEBERG (BLUSHING PINK ICEBERG), F** (Weatherly '95 int '97) (sport of Iceberg). PB, medium pink blend, darkens in cool weather, 15-25 petals. Dyck (1 pl 1 yr 1m BC): Harsh pink/white, ugly semi-double, bluish-pink on white. Open form, bad substance. Tall, bushy growth. Glossy light green foliage. Healthy. Iceberg is one of my darlings, in bush form and especially as a tree. But this 'Iceberg' should be ashamed of her sport. Very ugly—goodbye!

**POMONA, F** (Fryer '94). OB, 20 petals. No reports. (Last year for reporting this rose.)

**PRINCESS OF WALES, F** (Harkness '97). W. No reports.

**RASPBERRY RIPPLE, F** (int White Rose Nurseries NR '98). RB, striped. Broks (1 pl 1 yr 3' ON): Bright red, with cream and light pink ripples leading to a yellow centre. Clusters of 2" flowers, frilly edged. 20+ petals. Small but plentiful blooms June and Sept. Decorative form, fair substance. Bushy, spreading growth, with smallish dull leaves. Mildew prone and black spot! I won this rose bush at the CRS Annual Meeting., however, whenever I look at it—it has mildew! Even when nothing else has it! A bright, pretty set of blooms, though not fragrant. Raspberry Ripple is a very apt and descriptive name. It seems delicate, so I don't know how well it will winter.

**ROYAL WEDDING, F** (Zary '98). AB, pink amber, 41 petals, moderate fragrance. No reports.

**SCENTIMENTAL, F** (Carruth '99 int '97) (Playboy x Peppermint Twist). RB (striped), 25-30 petals, very fragrant, AARS '97. Decker (1 pl 5 yrs AK): Very little bloom, has nice foliage. Everyone likes the stripes. Ouellette (1 pl 1 yr 15" QC): Fragrant, double, novelty-coloured blooms, one to a stem. Decorative form, good substance, upright growth. Dark, glossy foliage. No disease. Not fair to judge a one year plant which has not reached its maturity. The colour of bloom is very attractive if you like striped roses. Shewchuk (1 pl 5 yrs 3' AB): Burgundy with cream stripes. Double 4-4.5" blooms, very fragrant, lots of bloom. Blooms shatter in three days but are quickly replaced. Form is like a double petunia, medium substance. Vigorous, upright growth. Large, dark, glossy foliage. No disease, needs winter protection. Do you like lots of pleasant fragrance in your garden? Plant two or three of these.

**SORBET BOUQUET, F** (Zary '99 int '00) (Tournament of Roses x

Seedling). PB, rose pink, reverse light yellow, 26-40 petals, slight fragrance. Decker (1 pl 2 yrs AK): Still a favourite, especially for the colour changes. Relatively healthy, fair rain-resistance.

**ST. JOHN, F**, Harkness ('94 int '95) (Prima x Grace Abounding). W, 15-25 petals, light fragrance. Decker (2 pl 2 yrs AK): A sprawling plant, with large bloom clusters. Will mildew if not sprayed. I have to stake this one especially if rainy—too much weight, then blooms open flat. Shewchuk (3 pls 4&5 yrs 2.5' AB): Double, 3" to 5" bloom, in sprays, light fragrance, very good repeat. Good substance. Medium green, glossy fragrance. No disease, needs winter protection. Often the slim canes need help supporting the heavy flower sprays. Excellent flower production.

**SUNSET BOULEVARD, F** (Harkness '97) (Harold MacMillan x Fellowship). OP, rich rust, ROTY '97, Golden Prize City of Glasgow '98. No reports.

### **LARGE FLOWERED CLIMBERS**

**CITY GIRL (COUNTRY COTTAGE), LC1** (Harkness '93 int '94) (Armada x Compassion). PB, light rose pink/primrose base/reverse salmon pink, 12 petals, fruity fragrance. No reports. (Last year for reporting this rose.)

**DELLA BALFOUR (ROYAL PAGEANT), LC1** (Harkness '94). AB, lemon scent. No reports. (Last year for reporting this rose.)

**FOURTH OF JULY (CRAZY FOR YOU), LC1** (Carruth '99) (Roller Coaster x Altissimo). RB, red/white stripes, 10-13 petals, AARS '99. Decker (2 pls 2 yrs AK): A favourite. Nice colour, large clusters, healthy. Still a favourite with the State Fair Judges, too. Samarin (1 pl 1 yr 4' BC) Red and white stripes, semi-double, good form and substance. Medium green foliage. No disease, good hardiness. This is a very pretty rose that is a favourite among visitors to my garden They love the perky little red and white clusters of roses which cover the bush. I love it too.

**PENNY LANE, LC1** (Harkness int '98). AB, buff, nice fragrance, ROTY 1998. No reports.

### **SHRUBS**

**ANTIQUE ARTISTRY, S** (Clements '00). AB, yellow/buff/apricot. No reports.

**APPLEBLOSSOM FLOWER CARPET (MAREVA) (SOMMERMELODIE), S (Gc)** (Noack '97). MP, no fragrance. Brisbane (2 pls 4 yrs 3'x5' BC): Starts as a lovely pink bud opening into a pale pink bloom, fades very little, constant bloomer, easy care. Decorative form, excellent substance. Upright, crawling, spreading growth habit. Bright green, shiny foliage. Disease-free



(and no bugs!). very hardy. Wonderful groundcover shrub, spreads in every direction—two cover a 6'x8' bed. Very free bloomer cutback and they are blooming freely in a week, Visitors ooh and aah!

**BAROQUE, S (Ge)** (Harkness '95). M, 15 petals, musk fragrance. Brisbane (2 pls 3 yrs 10" BC): Mauve-pink with gold stamens, 15 petals, musk fragrance, profuse bloomer. Decorative form, good substance. Upright, crawling, spreading growth habit. Dark green foliage. Disease-resistant, good hardiness. Lovely mauve-pink with gold stamens—charming. Not long-lasting, but in constant bloom. Started in pots, now in the ground and spreading well.

**BELLA RENAISSANCE (BELLE) (BELLE RENAISSANCE) (CHILD OF ACHIEVEMENT), S** (Poulsen '95). MY. Comeau (1 pl 1 yr low NS): Medium yellow, some darkish yellow, small in clusters. No disease. A very weak plant—looked like a seedling when received, but it grew to a foot and had a few clusters of blooms with no repeat. Supposed to be hardy.

**CAMROSE, S** (Twomey '96). LP, MP, light pink/darker pink reverse, 28 petals. Shewchuk (1 pl 6 yrs 2.5' AB): Light pink with a darker pink reverse. Bloom 5", 28 large petals, beautiful urn shape, good repeat. High-centred form, good substance. Strong upright canes, large dark-green, glossy foliage. No disease, needs winter protection. Has been a good performer for six years.

**CÉLINE DION, S** (Williams '00 int Quebec '01, internationally '02) (Fifth Avenue x Tropicana). OB, Brilliant orange-red blending to an amber gold centre. Laberge (5 pls 1 yr 80 cm QC): Orange-red, petals reflex, in clusters, good repeat, nice stamens. Semi-double form, good substance. Upright, compact growth. Copper and red foliage. Light black spot. Introduced in Canada (2001) by T. C. Bakker and Sons. Very good foliage—ornamental colour.

**CHARITY (CHARITY 97), S (English Rose)** (Austin '94 int '97). YB, soft apricot yellow, 90+ petals, strong myrrh fragrance. Cullen (2 pls 2 yrs 4' NY): No disease, excellent hardiness. Own-root plants aren't large enough yet for confident evaluation. Reasons for optimism: its fairly steady production into early fall; apical bloom on new canes; moderate habit; quite fragrant; and the flowers are a beautiful yellow with apricot shadings.

**CHATEAU FRONTENAC, S** ('96). DP. No reports.

**CHERRY MEILLANDECOR (CHERRY MEIDILAND), S** (Meilland '95 int '94) [MEIpoque x (RegensBerg x Fair Play)]. RB, Bright red/white, golden yellow stamens, single—5 petals, no fragrance. Geneva GM 1994. No reports. (Last year for reporting this rose.)

**CLAUDIA CARDINALE, S** (Guillot-Massad int '97). DY. No

reports.

**COLETTE (JOHN KEATS), S** (Meilland '96 int '95) [(MEIBeluxen x Friesia) x Prairie Princess] MP, 41+ petals, intense fragrance. No reports.

**CROWN PRINCESS MARGARETA, S (English Rose)** (Austin '99 int '00). AB, bright apricot-orange, 120 petals, intense fruity fragrance. Porter (1 pl 1 yr 2' SK): Apricot, very double, Borne singly, rather sparse bloomer with slow repeat. Decorative, flat form, good substance. Upright growth habit, semi-glossy foliage, no disease. Attractive blooms, but need more of them. Bush is not overly thorny.

**DE MONTARVILLE, S** (Dr. Svejda, int. Dr. Ogilvie, Agriculture Canada int '97 - Explorer Series) MP, dark red bud opens medium pink, 26 petals, hardy in Zone 3. Decker (1 pl 2 yr AK) :One of my favourite Explorers—colour, disease-resistance, and lots of bloom. Freeman (1 pl 5 yrs 3.5' ON) Medium pink, one to a stem open quickly but lots of them and an excellent repeat. Excellent hardiness. Not my favourite, but reliable. Graber (1 pl 6 yrs 4' own-root ON): MP, red buds, opens deep pink fades to lighter pink. . Each bloom opens quickly, but lots of bloom all summer. Loose form, fair substance, bushy growth semi-glossy foliage. No disease, hardy to Zone 3.

**EGLANTYNE (EGLANTYNE JEBB), S (English Rose)** (Austin '94) (Seedling x Mary Rose). DP, pure pink, 41+ petals, very fragrant. Danko (1 pl 4 yrs 4'-5' ON); Light pink, medium to large, double, repeats reasonably well, very fragrant. Exhibition form, excellent substance. Vigorous growth, green, shiny, abundant foliage. Reasonably disease-resistant, good hardiness. Produces award-winning singles and sprays; some black spot—loses lower leaves. Seems to prefer cooler weather and tolerates some shade. (Last year for reporting this rose.)

**ENGLAND'S ROSE, S (English Rose)** (Austin '95 int '99{?}) MY, flowers pale apricot, 118 petals, tea fragrance. Cullen (2 pls 2 yrs 3' NY): Bushy growth habit, no disease, hardy. Shows promise as a short to medium English Rose; so far no tendency to send out long canes and good productivity. Light yellow, attractively formed flowers, But fragrance is so-so.

**FALSTAFF, S (English Rose)** (Austin '99 int '00). DR, dark crimson turning to purple, 105 petals. McLean (1 pl 1 yr 4' BC): Crimson, double, rosette, clusters, 7 cm diameter, excellent scent. Excellent substance, shrub growth habit, dark green foliage. Some mildew, not affecting growth. Profuse bloomer, good fragrance, wonderful crimson.

**FIRST LIGHT, S** (Devor '98) (Bonica x Ballerina). LP, clear pink,

burgundy stamens. single 5-7 petals, spicy fragrance, AARS '98. Clarke (1 pl 3 yrs 2' ON): Beautiful light pink single rose, purple stamens. 5-7 petals. A good bloomer from June to October. Decorative form, excellent substance. Low and compact growth habit, medium-green foliage. No disease, hardy in Zone 5a. I just love this shrub! There is always some bloom on it, and every time I am in the garden it just screams out "Look at me!". Won Best Shrub and Best Spray at the CRS National Show 2001.

**FLORENCE DELATTRE, S** (Guillot-Massad int '97) M, grey-mauve. No reports.

**GEOFF HAMILTON, S (English Rose)** (Austin '99 int '97) (Heritage x seedling). MP, 108 petals, moderate fragrance. Raven (1 pl 1 yr 1 m AB): Single blooms, very full double, 8 cm wide, rose colour, sometimes nodding. Good growth habit, mid-green foliage, touch of black spot, hardiness good with winter mulch. Rich, rosy colour.

**GEORGE VANCOUVER, S** (Dr. Ian Ogilvie, Agriculture Canada int '94 - Explorer Series). MR, 24 petals, slight fragrance, hardy in Zone 3. Decker (2 pl 2 yrs AK): Another favourite—always in bloom. I use no cover here, now have two plants! Freeman (1 pl 1 yr ON): Medium red, not a lot of bloom this first year but expect it to improve. Rangy growth habit. Not as impressive as Hope for Humanity, but looks reliable—will know better next year. Shewchuk (1 pl 5 yrs 3.5' AB): Medium red fading to pink with age, 3-3.5" blooms, double, singly and in clusters, repeats well. Blooms until a killing frost. Cupped form, good substance, heavy-caned round growth habit. Medium green, matte, foliage. No disease. Had come through our bad winter very well. (Last year for reporting this rose.)

**GYPSY DANCER, S** (Dickson '94) (Sweet Magic x Little Artist). YB, hand-painted light yellow/ orange and light yellow reverse, 6-14 petals, slight fragrance. No reports. (Last year for reporting this rose.)

**HOPE FOR HUMANITY, S** (Collicutt & Davidson, Agriculture Canada int '95—Parkland Series—named in honour of the 100th anniversary of the Canadian Red Cross Society). DR, blood red, very dark red, 15-25 petals, slightly fragrant, hardy in Zone 3a. Comeau (1 pl 2 yrs 1.5' NS): DR, good colour, did not open fully, had only 3 blooms all summer. Good substance, weak growth, good hardiness. Upright growth, not a vigorous bush. Will cover again this winter and hope for better next year. Decker (1 pl 2 yrs AK): Very deep red, 3' tall here, long-lasting, did repeat bloom. Freeman (1 pl 2 yrs 3.5' ON): Dark red, no blue in it, more of a wine tone—outstanding. Clusters of bloom, excellent repeat. Decorative form,

very good substance, very hardy. I really like this rose although the canes could be a little thicker—maybe next year. Porter (1 pl 2 yrs 1.5' SK): Deep red with blackish tones, loose double, in small clusters, long-lasting. Decorative form, excellent substance, low upright growth. Medium green foliage. No disease. Weak plant died nearly to the ground, but regenerated well and made a better bush this year. Colour is appealing to me. Shewchuk (2 pls 5 yrs 3.5' AB): Blood red, 2.5-3", 35 petals, 2-6 per spray, good repeat, long-lasting, does not fade. Imbricate, very good substance, strong upright growth habit. Medium green, matte foliage. Slight mildew. Due to lack of snow cover, canes were killed to the ground but new canes came up fast and bloomed by mid-summer.

**JANET A. WOOD, S** (Jalbert '96 CAN). RB, 5 petals. No reports.

**JEEPER'S CREEPER, S (Gc)** (Kordes '93 int '94). W, 6-14 petals, slight fragrance. No reports. (Last year for reporting this rose.)

**JIM LOUNSBERY, S** (Fleming '95 int '94 CAN) (Liverpool Echo x R. Virginiana). OR, 5 petals, slight fragrance. Ouellette (1 pl 3 yrs 6' QC): Orange-red, bright single blooms in cluster, non-fading. Eye-catching colour. Flat, open blooms good substance, upright growth habit. Dark, leathery foliage, no disease, excellent hardiness. Striking colour. This year it was a steady repeat bloomer and was treated as a small climber. (Last year for reporting this rose.)

**JOAN FONTAINE, S** (Clements '96). W, soft flesh pink opening creamy white, touch of amber in centre, very fragrant. No reports.

**JOHN CLARE, S (English Rose)** (Austin '97, int '94). DP. No reports. (Last year for reporting this rose.)

**JUDE THE OBSCURE, S** (English Rose) (Austin '97 int '95) (Abraham Darby x Windrush). MY, deep buff-apricot, 55-70 petals, intense fragrance. Freeman (1 pl 2 yrs 3' ON): Apricot-buff, very full, globular bloom, only opens in hot weather, but is the most fragrant rose I've ever met. Excellent substance. Not a lot of bloom, but the fragrance has me bewitched even though each bloom is so full and heavy that the stem has trouble holding it up.

**KALEIDOSCOPE, S** (Walden '99) (Pink Pollyanna x Rainbow's End). M, mauve-tan, 25-30 petals, light fragrance, AARS 1999. Clausen (1 pl 4 yrs 4' IL): Unique colour combination, blooms well all season. Vigorous growth habit, green glossy foliage. Can black spot, very hardy. I started off with four as test roses and have one left. I like this shrub, but don't ask me why.

**KATERYNA, S** (Clements '96). MP. No reports.

**KNOCK OUT, S** (Radler '99 int '00). RB, 5-11 petals, slight tea fragrance, AARS 2000. Clausen (3 pls 1 yr 3' IL): red, attractive, single, 5 petals, good substance. Never falters on a good spray



programme. Very good hardiness—if in doubt mound with dirt for winter protection. I highly recommend this shrub to my rosarian friends north of me. A beautiful, well-shaped bush and never without blooms. A striking bush against a white fence. I wish it had more fragrance. Decker (1 pl 2 yrs AK): Relegated to the back yard due to mildew (heavy). Potted here— not hardy enough. Laberge (10 pls 2 yrs 3' QC): Vibrant pink-red, flashy colour, 5-8 petals, borne in clusters—luminous effect. Semi-double form, good substance, rounded bushy growth, blue-green foliage. Hardy to Zone 5B. Good contrast between bloom and leaves, young shoots are burgundy, good landscape plant. Raven (1 pl 2 yrs 50 cm AB): Rich cerise-pink, sprays of 4-5, single to semi-double, 7 cm wide. Decorative form, excellent substance, some mildew. Very bushy, glossy green foliage. Must mulch for winter protection. Good flush of blooms and a good repeat. Petals tend to curve inward.

**LAMBERT CLOSSE, S** (Dr. Svejda, int. Dr. Ogilvie, Agriculture Canada '94 int '95 - Explorer Rose). MP, 53 petals, slight fragrance, hardy in Zone 3. Decker (1 pl 2 yrs AK): More high-centred than the others. An attractive light pink and fairly floriferous. Seems healthy and hardy. Graber (1 pl 5 yrs, ON): Coral pink, fades to light pink. Best form of any Explorer Rose—close to HT form, good repeat bloom, good substance. Upright growth, dark green glossy foliage. Some black spot, very hardy. Fat almost pear-shaped hips. Ouellette (2 pls 7 yrs 2' QC): Clusters of 2-3 per stem, some singly, double 50 petals, peachy-pink in my garden. Almost HT form, quite good substance. Bushy upright growth. Rather small, mid-green foliage. Healthy and hardy. One of the best Eastern Canadian hardy shrubs in the Explorer Series. Blooms not so abundant this year because of the hot weather. Porter (1 pl 1 yr 10" SK): Double blooms, sparse so far. Near exhibition form, good substance. Bushy growth, medium green foliage. No disease. Bought a small plant that didn't make much effort to bloom after planting

**LYDA ROSE, S** (Lettunich '94), W, apple blossom pink, single. No reports. (Last year for reporting this rose.)

**MARIE-VICTORIN, S (K)** (Agriculture Canada '99 int '98 - Explorer Rose) (Arthur Bell x [R. kordesii x Max Graf]). AB, deep peach bud to pale peach to pink, 38 petals, hardy in Zone 3. Decker (1 pl 2 yrs AK): Put out more growth and a few flowers. Looks like a taller grower. Freeman (1 pl 2 yrs 3.5' ON): Bud is a beautiful pale, peachy-apricot. Semi-double, loose, in clusters. Long rangy canes. very hardy. The colour of the buds is great for a hardy rose. Once it opens it's not memorable, but it's very hardy. Give it lots of room.



**MARINETTE, S (English Rose)** (Austin '97 int '95) (Lucetta x Red Coat). MP, pleasing fragrance. No reports.

**MARTINE GUILLOT, S** (Guillot-Massad int '96). W, cream-apricot. No reports.

**MARY MAGDALENE, S (English Rose)** (Austin '99 int '98) (seedling x seedling). PB, 41 petals. Cullen (3 pls 1-3 yrs 2' NY): No disease, good hardiness. Own-root plants too young for firm evaluation, but so far they give promise as being one of the better short-to-medium English Roses. Blooms are medium-sized, light pink with hints of peach, pleasantly fragrant. Raven (1 pl 1 yr 50 cm Ab): Pink and cream flower, quite double, 8 cm wide. Decorative form, fair substance. Leggy growth habit. Touch of black spot and mildew, needs a winter mulch.

**MAYOR OF CASTERBRIDGE, S (English Rose)** (Austin '97 int '96). PB, soft pink/lighter pink reverse, 40 petals, old rose fragrance. Cullen (3 pls 4 yrs 10-15" NY): No disease, no dieback at 10 degrees. Mayor is a 12' climber, but can be cut back. Good fragrance, few blooms after August.

**MOLINEUX, S (English Rose)** (Austin '94) (Graham Thomas x Golden Showers). DY, rich yellow/pink shadings, 110-120 petals, strong tea fragrance, RNRS PIT '96, Edland FA '96, Glasgow GM '99. Brisbane (1 pl 6 yrs 3.5' BC): Rich yellow with pink shadings. Very full bloom, 110-120 petals, rosette shape, serrated petals, floriferous and they last. Strong tea rose fragrance. Decorative form, excellent substance. Short, bushy growth. Dark-green foliage, disease-resistant, good hardiness. Never stops blooming. Ideal size (3.5' x 3') for smaller gardens or centre of a border. Always a pleasure to gaze and sniff!! Recommended. Dyck (1 pl 1 yr 80 cm BC): Dark, very rich yellow, lightens away from the centre. Tea rose fragrance. Opens flat, but an attractive full form, long-lasting. Very strong growth, abundant dark-green foliage. No disease, good hardiness. Inherited the excellent characteristics from both parents (Graham Thomas x Golden Showers). An excellent bedding rose. Graber (1 pl 4 yrs 3.5' ON): A strong yellow, does not fade, good repeat. Cupped rosette form, very good substance. Upright growth, medium-green foliage. No disease, hardy Zone 6b. Strong fragrance. One of my favourite Austin Roses. Porter (1 pl 1 yr 2' SK): Yellow, some pink or apricot tones. Very double, flat blooms. Solitary or in small clusters, fast repeat for a young plant. Decorative form, good substance. Upright growth, medium to dark-green foliage, no disease. Promising—hope it blooms heavier in the future. Semsch (1 pl 1 yr low BC): Deep yellow, beautiful full blooms with good form and substance. No disease. A truly beautiful Austin Rose—the colour is wonderful. (Last year for reporting this

rose.)

**MORDEN SNOW BEAUTY (MORDEN SNOWBEAUTY), S** (Davidson & Collicutt, Agriculture Canada int '98 - Parkland Series). W, single. 5-9 petals, light fragrance, hardy in Zone 3. Ouellette (2 pls 3 yrs 3' QC): Semi-double in clusters, many are single, pure white, slightly wavy petals. Open, flat, decorative form, average substance. Upright, bushy growth habit. Medium-green foliage. No disease, excellent hardiness. Always has some blooms. A good repeater, blooms long-lasting on the bush. This is a winner!

**MORDEN SUNRISE, S** (Davidson, Agriculture Canada '99 int '00 - Parkland Series). YB, apricot buds, yellow blend, semi-double. Freeman (1 pl 1 yr 6" ON): Golden yellow dusted with orange. Single flowers, extremely fresh looking, very attractive. Very short so far. What foliage? Got a tiny bush and it stayed that way. Bush black spotted and defoliated completely; grew all new leaves and started to black spot again, it kept blooming through it all. Porter (1 pl 1 yr 6" SK): Yellow with reddish edges. Single, wavy petals, sparse so far. Decorative form. Low, bushy growth with dull foliage. No disease. Bought a 4" potted plant—it didn't show much vigour this year. Appealing flowers.

**NICOLAS, S** (Agriculture Canada int '96 - Explorer Series). MR, 18-20 petals, hardy in Zone 3. No reports.

**NOBLE ANTONY, S (English Rose)** (Austin '97 int '95). MR, deep magenta-crimson, 50+ petals, rich fragrance. No reports.

**PAT AUSTIN, S (English Rose)** (Austin '97 int '95). OB, bright copper inside, copper-yellow outside, 41+ petals, very fragrant. Brisbane (1 pl 4 yrs 3.5' BC): beautiful bright copper inside, pale copper-yellow on the outside. Large, deeply cupped, 50 petals, mostly singles. Decorative form, excellent substance. Vigorous, bushy growth. Dark-green, glossy foliage. Disease-free, good hardiness. Most fascinating rose I have ever grown—always a pleasure to look at, and our visitors love it. Colour reminds me of Austrian Copper. Very fragrant. Chambers (1 pl 4 yrs 3' ON): An unusual colour—copper with a lighter reverse. Typical Austin form, double, cupped, mostly singles. No disease, good substance. Slow grower in my garden. Good hardiness. Everyone is attracted to the colour, but it is overpowered by Graham Thomas in my Austin bed.

**PAUL BOCUSE, S** (Guillot-Massad int '97). AB, fragrant. No reports.

**PEACHY PINK MAGIC CARPET (MYSTIC) (SUPREME COVER), S (Gc)** (Poulsen '94). LP, semi-double. No reports. (Last year for reporting this rose.)

**PEGASUS, S (English Rose)** (Austin '97 int '95) (Graham Thomas x Pascali). LY, apricot yellow fading to cream at edges,

intense tea rose fragrance. No reports.

**PILLOW FIGHT, S** (Carruth '99, int '00) (Pink Pollyanna x Gourmet Popcorn). W, 17-25 petals, intense honey and rose fragrance. Porter (1 pl 2 yrs SK): Creamy white, semi-double in large clusters of up to 22, each one about 1.75", myrrh type scent, good repeat. Decorative form, excellent substance. bushy, slightly sprawling growth habit. Glossy dark-green foliage. Trace of black spot at the base. Died to the soil level last winter. One of my best shrubs—outblossoms practically everything. Worth a bit of protection.

**QUADRA (J. F. QUADRA), S** (Agriculture Canada int '94 - Explorer Series). DR, dark red bud, deep velvety crimson bloom fades to light red, 60 petals, hardy in Zone 3. Ouellette (1 pl 8 yrs 6' QC): Clusters of dark red, double blossoms fading to light red. Decorative, cupped, form. Very good substance. Vigorous, long, arching branches. Medium green foliage tinged with red in the fall. Some black spot, excellent hardiness. Along the lot-line, pedestrians always comment on the glorious colour and the abundance of bloom one plant can produce! (Last year for reporting this rose.)

**RADIO TIMES, S (English Rose)** (Austin '97 int '94). MP, clear rich pink, red stamens, 96-110 petals, very fragrant. Brisbane (1 pl 5 yrs 3.5' BC): Very full, 96-110 petals, purest rich pink, rosette-shaped blossoms, very free flowering. Decorative form excellent substance. Short, bushy growth, medium-green foliage. Disease-resistant, good hardiness. As it opens petals incurve to show reddish stamens, has intense fragrance. Smaller size ideal for small gardens or middle of the rose bed. Enjoy it! (Last year for reporting this rose.)

**RED FLOWER CARPET (ALCANTARA) (RED HEIDETRAUM) (RED VELVET) (VELVET FLOWER CARPET) (VESUVIA), S (Gc)** (Noack '01 int '00). MR. McLean (3 pls 2 yrs 30 cm BC): bright red with a yellow centre, single, 4 cm, clusters, excellent substance. Groundcover, light-green foliage. No disease, survived a Vancouver winter. Impressive masses of bright red blossoms with yellow centres. Performs well as a standard (budded at 1.2m) as well as a groundcover. This red is the most eye-catching of my Flower Carpet collection which includes White, Pink, Yellow, Appleblossom, as well as Red Flower Carpet.

**REGINA LOUISE, S** (Clements '99). LP, apricot-white/deep pink stamens, myrrh fragrance, semi-double. No reports.

**ROCKIN' ROBIN, S** (Carruth '99 int '97) (Bonica x Roller Coaster). RB (striped), 40 petals, light apple fragrance. No reports.

**ROYAL AMBER, S** (Clements '00). AB, amber and yellow. No reports

**ROYAL BONICA, S** (Meilland '94) (Sport of Bonica). MP, warm pink, 75 petals, slight fragrance. Fleming (1 pl 5 yrs 30" ON): Double bloom, 2.5-3", slight fragrance, long-lasting. Decorative form, very good substance, upright growth. Some black spot in Sept., very good hardiness. A good rose, not as floriferous as I would like. No protection in Zone 6b required. Ouellette (2 pls 4 yrs 2.75' QC): Clusters of rich, medium-pink double, non-fading blooms. Some fragrance. Decorative, cupped form, very good substance.. Low arching canes, shiny dark-green foliage. No disease, excellent hardiness. Prefer it to Bonica. It always receives comments from visitors who cannot believe it is such a carefree, beautiful rose. (Last year for reporting this rose.)

**ROYAL EDWARD, S** (Dr. Ian Ogilvie, Agriculture Canada, '94 int '95 - Explorer Series). MP, deep pink bud/medium pink blossom, fades to pale pink, 18 petals, sweet fragrance, hardy in Zone 3. Decker (2 pl 2 yrs AK): blooms in long-lasting flushes. Nice bright colour, seems hardy...and short. Fleming (1 pl 2 yrs 16" ON): Pink, double, paler reverse, decorative form, small clusters, fair substance. Twiggy low growth. Good matte green foliage. No disease, hardy in Zone 6b. Not the vigour we have come to expect from Ag. Canada roses. Shows a lack of magnesium sulphate that other roses don't exhibit. No black spot even in late Sept. (not sprayed). No protection required. Gibson (1 pl 3 yrs 2' ON): Excellent double blooms, small, 10 petals, open face, not many flowers, repeats. Exhibition form fair/good substance. Short sprawling growth habit. No disease. Stems are frail, not very hardy. blooms last on the bush and cut. Small shrub—should plant near front. Grows wider around, not taller. Stems require support, or the outside ones lie on the ground. Not a hardy shrub. Porter (1 pl 6 yrs 9" SK): Semi-double, in small clusters, wavy petals, sparse. Decorative form, good substance. Low, weak growth, dark-green foliage. No disease, fair hardiness. Growing in a dry area underlain with willow roots from a neighbour's tree—perhaps not a fair test—but generally not showy or very impressive. Essentially a Mini rose.

**ROYAL WEDDING, S (F)** (Zary '98) (Impatient x Amber Queen). AB, pink amber, 41 petals. No reports.

**SCEPTER'D ISLE, S (English Rose)** (Austin '97 int '96). LP, soft pink, shading to pretty pink on outer petals, very fragrant. No reports.

**SNOWBELT, S (Pol)** (Jerabek '97) (seedling x seedling). W, 15-25 petals, slight fragrance. Cullen (2 pls 3 yrs 2' NY): No disease, good hardiness. Snowbelt would make a great hedge if planted 18" apart. Its great feature is that it is a bush that remains well-shaped with minimal pruning. Multiflora-like flowers and hips, nice

fragrance.

**SOMMERABEND (RED IMMENSEE) (SUMMER EVENING) (SUMMER'S EVENING), S (Gc)** (Kordes '95). MR, fragrant. No reports.

**SONIA RYKIEL, S** (Guillot-Massad int '95). OP, fragrant. coral pink. No reports.

**SOPHY'S ROSE, S (English Rose)** (Austin '99 int '97) (Prospero x seedling). RB, red-purple, 82 petals, moderate fragrance. Cullen (2 pls 2 yrs 4-5' NY). Upright, bushy growth, no disease, hardy. Own-root plants too young for true evaluation; a highly productive plant that keeps a manageable habit. Very pretty, deep pink (at times light red) blooms, but alas no fragrance to speak of.

**SOURIRE ROSE, S (HMask)** (Lens '00 int '96). LP. No reports.

**TEASING GEORGIA, S (English Rose)** (Austin '99) (Charles Austin x seedling). YB, 110 petals, moderate fragrance. Cullen (2 pls 2 yrs 6' NY): No disease, excellent hardiness. Own-root plants too young for firm evaluation. Best point is the bloom: gorgeous and fragrant. Worrisome points: production falls off in the summer; no apical production on new canes. McLean (1 pl 1 yr 60 cm BC): Yellow, double, rosette, clusters, 7 cm diameter, moderate scent. Drooping flower stems, good substance. Mid-green foliage, no disease. Not as good as Graham Thomas, but an acceptable yellow Austin.

**TESS OF THE D'URBERVILLES, S (English Rose)** (Austin '99 int '98) (The Squire x seedling). DR, dark crimson red, 41 petals, moderate fragrance. Raven (1 pl 1 yr 1m Ab): Dark red, very double, 12 cm across, petals strongly reflexed, sprays of 1-3. Decorative form, good substance. Leggy growth, mid-green glossy foliage. Touch of mildew, needs winter mulch. Very glowing rose-red flowers that tend to hang from stems. Not as fragrant as some of the Austin Roses.

**THE GIFT, S (Pol)** (Demits '81, int '00) W, - Special Report by Prof. Patrick Cullen (3 pls 5 yrs NY). This rose was hybridized twenty years ago, but it has only recently become available from a major nursery. It deserves attention, however belatedly. No reports.

**TREVOR GRIFFITHS, S (English Rose)** (Austin '97 int '94) (Wife of Bath x Hero). DP, dusky pink, old rose fragrance. No reports. (Last year for reporting this rose.)

**TUMBLING WATERS, S (Gc)** (Poulsen '98). W, lp. Cullen (3 pls 1 yr NY): Too young for me to be certain about its habit, but so far it seems a great edging plant (I have it in front of coryopteris with dianthus "Rose de mai" in front). Productive well into late November, even December. Attractive, small hips.

**VELVET COVER (RED FAIRY), S (Gc)** (Poulsen int '95). DR.



No reports.

**WHITE FLOWER CARPET, S (Gc)** (Noack '91 int '94). W, yellow stamens. ADR '91, Rose of the Hague '95. Ouellette (1 pl 2 yrs 22" QC): Two inch diameter, single white blooms in clusters of 3-4 on fairly short stems. Decorative form, fairly thin substance. Low spreading habit. Small, glossy dark-green foliage. No disease, hardy. Propagates easily from cuttings. best to mulch as water splashing (rain also) tends to spoil the thin petals of low blooms. (Last year for reporting this rose.)

**WILLIAM BOOTH, S** (Agriculture Canada, int '99 - Explorer Series). MR, deep red bud changes to medium red, fades to light red, 5 petals, hardy in Zone 3. Fleming (1 pl 2 yrs 30" ON): Pink, single in small clusters, 5 petals. Decorative form, fair substance, upright growth. Good, fairly shiny foliage. No disease, good hardiness. No black spot late Sept (no spray). May improve with age, filling out better. No winter protection needed.

**WILLIAM MORRIS, S (English Rose)** (Austin '99 int '98) (Abraham Darby x seedling). AB, apricot blend, reverse light pink, 120 petals, intense fragrance. Cullen (2 pls 2 yrs 4' NY): No disease, good hardiness. Own-root plants too young for firm evaluation. Great apricot-pink bloom with a good fruity fragrance; decent productivity. May be a climber.

**WINDFLOWER, S (English Rose)** (Austin '97 int '94) (Shropshire Lass x seedling). LP, soft pink, pleasant fragrance. No reports. (Last year for reporting this rose.)

### MINIATURES

**ABSOLUTELY, Min** (Saville '98). YB, pale to medium yellow/dusting of apricot pink/reverse lighter, 26-40 petals, slight fragrance. Decker (1 pl 2 yrs AK): Sprawling, some mildew, attractive colour combination, and lots of bloom.

**ACE OF DIAMONDS, Min** (Bridges '98). MR, 26-40 petals, intense fragrance. Graber (1 pl 3 yrs 18" ON): Loose, decorative form, fair substance, spreading growth habit, hardy with cover. Lost two plants last winter, not sorry to see them go. Coarse thorny plant—stems very large and flowers do not redeem it.

**AMBER SUNSET, Min** (Mander int '96' CAN). OB, orange/orange and dark-yellow reverse, 26-40 petals, slight fragrance. Brisbane (1 pl 2 yrs 16" BC): Large double bloom, 26-46 petals, borne in clusters, very floriferous—never stopped blooming all summer. Exhibition form, very good substance, vigorous and bushy growth habit. Dark, glossy foliage. Disease-resistant, good hardiness. Very attractive colour combination in an interesting group of four Mander patio-type minis. I prune all my minis by 1/3

in the fall, remove all leaves, re prune to 6" in spring. Graber (1 pl 1 yr 24" ON): Amber flushed red, yellow reverse, lovely combination of colours, more and deeper red in full sun. High-centred, double form, very good substance. Upright growth, dark-green foliage. Black spots. Looks promising. Stanton (2 pls 4 yrs 10-12" ON): Striking orange blend. Starred form, good substance, compact growth, small foliage, no disease, good hardiness.

**AMY GRANT, Min (MinFl)** (Tucker '98 int '99). LP, light pink/white. Decker (2 pl 3 yrs ON): Large, high-centred bloom. Rain-resistant. Plenty of bloom, but not as profuse as some. See this has been reclassified to Mini-Flora as it should be.

**ANGELICA RENAE, Min** (Wells '96). PB, Orange/pink blend, 26-40 petals, very slight fragrance, AoE '96. No reports.

**ANTIQUE GOLD, Min** (Laver '95 int '96 CAN). YB, deep chrome yellow tipped red, 15-25 petals, slight fragrance. AoE 1999. Graber (3 pls 5 yrs 12-18" ON): Strong yellow—doesn't fade. Flushes with red in full sun, many clusters of 3-5. Exhibition form, very good substance, compact growth, deep-green foliage. No disease, hardy. Excellent yellow for the border. Somerville (1 pl 2 yrs 17" ON): Exhibition, nicely pointed blooms and many of them. Very good substance, tall and bushy growth, dark-green foliage, black spots, hardy. Though not a lover of yellow and red blends, this one is very nice. Flowers are non-fading, and long-lasting.

**APOLLO, Min** (Burnaby Lake Greenhouses, Surrey, BC, unregistered, '98). DP, many petals. Hargraves (1 pl 3 yrs 12-15" BC): Not very bushy. Not many blossoms, but those produced are a delicate pink with a creamy centre, tight set—looks like a miniature HT. Sweet fragrance, medium-green foliage.

**AUNTIE LOUISE, Min** (Jalbert '00 CAN). OB, amber yellow with orange shades. Freeman (1 pl 1 yr 8" ON): HT form, very good substance. Saw this in Vancouver and really liked it. Will wait and hope it looks as good in Toronto. Stanton (1 pl 1 yr 12" ON): Very pretty colour, free-flowering, good size. Exhibition form, good substance. Spreading growth habit, small medium-green foliage. No disease. This was a replacement, now in a window box and doing well.

**AUTUMN SPLENDOR, Min (MinFl)** (M. Williams '99). YB, 26-40 petals, slight fragrance, AoE '99. Decker (1 pl 3 yrs AK): Sparse foliage, will mildew. Mostly singles, nice bright colour. Not rain-resistant.

**BAMBINO, Min (Micro-mini)** (Saville '97 int '98). OR, red-orange, 26-40 petals, no fragrance. No reports.

**BEHOLD, Min** (Saville '96 int '97). MY, bright yellow/lighter reverse, 15-25 petals, no fragrance. Decker (2 pls 5 yrs AK): Good

substance and rain-resistant. Long-lasting, mid-yellow. Still my favourite yellow.

**BRITTANY'S GLOWING STAR (AMBER STAR** in U.S.) (Mander & Pazdzierski '99 'int '00 CAN) (sport of Glowing Amber). OB, amber orange/reverse golden yellow, 26-40 petals, slight fragrance, sport of Glowing Amber. Brisbane (1 pl 2 yrs 14" BC): Blend of amber and soft orange, reverse golden yellow. 1.5" double bloom, reflexed petals, singles and small sprays, floriferous, some fragrance. Exhibition form, excellent substance, some fragrance. Upright, bushy growth. Dark, glossy foliage. Disease-free, hardy. A new and exciting colour in Minis. It is a sport of Glowing Amber, but a much gentler blend of colours; for me, much more attractive. A patio-type rose. Brooks (1 pl 1 yr 24" ON): Yellow bud tinged with red opens to apricot with yellow centres. Star-shaped flowers—very striking. One per branch, long-lasting when cut. Exhibition form, excellent substance. Bushy growth (2' wide). Small dull foliage, reddish stems. Very disease -resistant. Lovely rose with a unique star shape. Vigorous, bushy growth. Repeat blooms that last well on the bush and when cut. Graber (1 pl 2 yrs 24" ON): Orange with yellow reverse, mostly in singles, holds well. Exhibition form, excellent substance. Upright growth, dark-green foliage. Some black spot, hardy. A sport of Glowing Amber, but much lighter colours. Stanton (1 pl 1 yr 18" ON): Bright colour, nice blend of orange/yellow. Exhibition form, good substance, tall. Medium-green and -size foliage. No disease. Looks like a winner.

**BUBBLES, Min (Gc)** (Fryer '98) MP. Danko (2 pls 2 yrs 24" ON): Small, single blooms, profuse in number, borne on long stems in clusters and singles. Dwarf groundcover, excellent substance. Low, vigorous growth habit. Abundant, shiny, green foliage. Very disease-resistant. Needs very little winter protection, Transplants easily, grows and blooms like a smaller version of Ballerina or Lavender Dream. Bubbles repeats well and tolerates part shade.

**CACHET, Min (MinFl)** (Tucker '97). W, 26-40 petals, no fragrance. Clausen (2 pls 3 yrs 24" IL); Pure white, 35 petals, excellent form (eye-catching), very good substance. Very vigorous growth, with correct bloom/foilage balance. Healthy, good hardiness. One of the better whites available. Decker (1 pl 3 yrs AK): Tall and sprawling, large bloom with good form, healthy.

**CAROLINA LADY, Min** (Williams '00). MR. Clausen (4 pls 1 yr 16-18" IL): Red, well-shaped form. Very aggressive grower, dark-green foliage. Healthy all season. I have appreciated my four Carolina Lady plants, and have heard many positive reports on this cultivar. A very clear red bloom colour.

**CARROT TOP (PANACHE) (TOP HIT), Min** (Poulsen '91 int '94). OB, clear lasting orange, 15-25 petals, slight fragrance. No reports. (Last year for reporting this rose.)

**CHERRY WINE, Min** (Jalbert '93 int '94 CAN). MR, medium red/hint of lavender at petal's base, 26-40 petals, slight fragrance. No reports (Last year for reporting this rose.)

**CL. RAINBOW'S END, Min** (O'Brien '98). (sport of Rainbow's End) YB, bright yellow edged scarlet, reverse lighter, 25-40 petals, slight fragrance. Clausen (1 pl 3 yrs 10' IL): Yellow blend, 35 petals, slight fragrance, well-formed like its parent, good substance. Watch it respond to water and fertilizer. Glossy, dark-green foliage. Some black spot, hardy. A very active Miniature Climber. It has attractive foliage and bloom.

**CONSTELLATION, Min** (Saville int '00). W. No reports.

**CORAL 'N' GOLD, Min** (Mander '95 CAN). OP, coral/salmon/pink blend, 36-40 petals, no fragrance. No reports.

**DAINTY BOUQUET, Min** (Laver '94 int '96 CAN). MP, clear pink, 41+ petals, slight fragrance. Somerville (2 pls 2 yrs 13" ON): Decorative form, many petals, long-lasting, many to a stem. Solid substance. Low, bushy growth. Light green, medium foliage. Black spots, hardy if covered. Good garden rose, blooms a long time, bright pink. Stanton (2 pls 1 yr 6-8" ON): Pretty in bloom. It did not do well this summer—planted late. Decorative form, good substance, compact growth. Small, medium green foliage. No disease.

**DAZZLER, Min** (Kelly '97 int '98). YB, White/red edge/yellow base, 15-25 petals, slight fragrance. Decker (1 pl 2 yrs AK): One of the multi-colour minis. Has deep red edging on petals. Here fairly rain-resistant. Striking colour combination.

**DELICIOUS, Min** (Eric Welsh '95 int '94 AUS). MP, 24-30 petals, very fragrant. Graber (2 pls 4 yrs 14" ON): Bright MP, looks like pink icing, 2". Exhibition form, excellent substance, upright growth, dark-green foliage. Very fragrant. Lovely Mini—one of my favourites. (Last year for reporting this rose.)

**DENVER'S DREAM, Min** (Saville '95 int '94). OB, bright copper orange/red reverse, 15-25 petals, no fragrance. No reports. (Last year for reporting this rose.)

**DIANA FESTIVAL, Min** (Laver '96 CAN). LP, slight fragrance. Somerville (1 pl 2 yrs 12" ON): Pink with white reverse, mainly in clusters, very nice colour. Shows well for me. Exhibition form, solid substance. Low, bushy growth. Light-green, shiny foliage. Black spots, hardy. Nice, low-growing. Nice in front of bed. Bloomed in profusion all year. Stanton (1 pl 5 yrs ON): Very pretty pink, lots of it, mostly sprays. Long bud, exhibition form, good

substance. Upright slender growth. Some black spot.

**DREAM LOVER, Min** (Rennie '95 CAN): LP, 26-40 petals, raspberry fragrance. Somerville (1 pl 2 yrs 25" ON): PB, very double, 40 petals, nice colour, some balling in wet weather. Exhibition form. Tall, shiny, medium-green foliage. Black spots, good hardiness. Like this one, but can't get it to the show table. Stanton (2 pls 3 yrs ON): Large for a Mini, shapely, exhibition form, good substance. Upright, tall, dark-green foliage. No disease, hardy. Not a prolific bloomer, but worth the wait.

**EVERGLO, Min** (Laver '98 CAN). OR. Stanton (1 pl 4 yrs 6-8" ON): Striking colour, decorative form, good substance, small compact bush, small foliage. Insects like it, good hardiness.

**FALL FESTIVAL, Min** (Laver '97 CAN). RB, striped orange-red/splashes of yellow, 32 petals. Broks (1 pl 2 yrs 18" ON): Red with a beige stripe—dull looking flower, 30+ petals, single blooms, repeats June and September. Exhibition form, good substance, upright growth. Susceptible to black spot. Hardy when hilled. A dull flower...good form, but not very colourful. It is different, but I prefer Striped Festival. Stanton (1 pl 5 yrs 15" ON): Very pretty red/yellow striped, prolific and striking. Decorative form, good substance, tall, medium-green foliage. No disease, good hardiness.

**FANCY POTLUCK, Min** (Laver '98 CAN). DR, 35-40 petals. Somerville (2 pls 2 yrs 12" ON): Dark red, small decorative form, good substance. Low-growing, dark-green foliage, black spots, good hardiness. Nice little garden rose with nice colour. Stanton (1 pl 4 yrs ON): A good red, fades, fairly prolific, decorative form, good substance. Small and compact, small dark-green foliage. No disease, good hardiness.

**FASHION PARADE, Min** (Poulsen '94). MP, deep pink to magenta-pink. Porter (2 pls 2 yrs 8" SK): Magenta-pink, glowing, double, generally profuse, in clusters, repeating well, excellent substance. Bushy growth, dark-green foliage. Some black spot on one plant, hardiness okay with protection. Has performed well with minimal care in a borrowed yard. Very bright colour is hard not to notice. (Last year for reporting this rose.)

**FLOWER POWER, Min (MinFl)** (Fryer '98). OB. Porter (1 pl 1 yr 14" SK): Light to medium salmon-pink, double, in small clusters. Exhibition form, excellent substance. Upright, compact growth habit. Dark green, attractive foliage. No disease. A most attractive rose—not too abundant in fall.

**FORTUNE COOKIE, Min** (Saville '95 int '96). AB, 15-25 petals, no fragrance. No reports.

**GALA GOLD, Min** (Laver '93 int '94 CAN). DY, golden yellow, 30 petals, no fragrance. Somerville (2 pls 2 yrs 21" ON): Gold,



double, bright, mostly one to a stem. Exhibition form, strong substance, bushy growth, light medium-green foliage. Black spots, hardy. A very good yellow—nice form, long-lasting. (Last year for reporting this rose.)

**GLORY BE, Min** (Saville '94 int '95). DY, 15-25 petals, no fragrance. No reports.

**GLOWING AMBER, Min** (Mander '96 CAN). RB, scarlet red/deep yellow reverse/yellow centre, 35 petals, slight fragrance. Brisbane (1 pl 3 yrs 18" BC): Scarlet-red, deep yellow reverse, yellow centre. Large blooms. 35 pointed petals, mostly singles, very floriferous, needs deadheading daily. High-centred exhibition form, excellent substance. Very vigorous, bushy. Dark, glossy foliage. Very disease-resistant, very good hardiness. A striking colour combination—attracts a lot of attention. I prefer Mander's gentler colours but it's still a great rose. A patio type for me. Brooks (1 pl 1 yr 12" ON): Orangey-red edges with a deep golden-yellow centre, Star-shaped bloom, pointed edges, one to a stem, 15-25 petals. Exhibition form, good substance. Bushy growth. Small, dull-green foliage with red stems. A bit of black spot. Striking flower. Plant is low and spreading to 1.5'. Not a prolific bloomer—didn't like the heat, blooms June and Sept. Good cut flower. Not very fragrant. Clausen (13 pls 4 yrs 24-30" IL): Exhibition form—a sure winner, great substance. Vigorous growth, dark-green foliage. Again, all roses need spray attention, very hardy. What a rose! Now Amber Star comes in a little different colour combination. Any given day, I can pick a bouquet of Glowing Amber in our garden. Decker (2 pls 4 yrs AK): Nice high-centred blooms, lots of them. Deep-red and gold here. Does mildew. Graber (4 pls 4 yrs ON): Dark red, deep-yellow reverse. Fully double, lots of singles, always in bloom, red flush sometimes mottled. Exhibition form, excellent substance. Upright growth, dark-green, glossy foliage. Some black spot, hardy. Top exhibition rose! Somerville (1 pl 2 yrs 23" ON): Red and yellow, HT shape, 33 petals, singles and clusters, lots of bloom. Exhibition form, good substance. Medium-high growth habit, dark-green foliage. Black spots, good hardiness. A good, healthy, bushy plant. Bright showy flowers. Stanton (1 pl 4 yrs 15-18" ON): Bright red/yellow, double, pointed outer petals. Exhibition form, good substance. Spreading growth habit, medium-green foliage. No disease, good hardiness.

**GOLDEN BERYL, Min** (Mander '95 CAN). YB, deep yellow/brushed orange inside petals, 15-25 petals, slight fragrance. Brisbane (1 pl 3 yrs 18" BC): A delightful yellow bloom—the orange brush marks add to its attractiveness, 20-25 petals, reflexed petals, constant bloomer. Excellent high-centred form, excellent

substance. Tall, bushy grower. Medium-green, glossy foliage. Disease-resistant, good hardiness. A very pretty Mini—always in bloom, starts my day with a smile. For me it is a patio type, so give it space. Highly recommended. Porter (1 pl 4 yrs 9" SK): Gold with reddish blush, double, borne singly, rather sparse, long-lasting. Exhibition form, excellent substance. Bushy growth. Dark-green, semi-glossy foliage. Needs protection. Too much competition to rate this one fairly—needs more vigour. Somerville (1 pl 1 yr 12" ON): YB, 25 petals, nice HT shape, exhibition form, solid substance. Low grower, medium-green foliage. Black spots. Small plant and first year—not many flowers. Stanton (2 pls 4 yrs 10-12" ON): YB, brilliant colour, exhibition form, good substance. Fairly compact growth, dark-green foliage, some black spot.

**HEAVEN SCENT PINK, Min (patio)** (Jalbert '96 int '97 CAN). LP, soft pink, 26-40 petals, very fragrant. Brisbane (1 pl 3 yrs 20" BC): Large bloom, 26-46 petals, mostly singles. Constantly in bloom and they last for days. Full, high-centred form, excellent substance. Tall, bushy growth, glossy mid-green foliage. Very disease-resistant, very good hardiness. A patio-type and one of my favourites. Out-of-this world fragrance, and a lovely soft pink. To top that—an incredible number of blooms. Brooks (1 pl 1 yr 12" ON): Pale pink, singles on longish stems, a full bloom for a Mini. Exhibition form, fair substance. Upright growth habit. Dull, longish pointed leaves. June had a good number of flowers, bloomed in Sept. but had few flowers. Good for cutting and showing, but does not seem too disease-resistant. I wonder how it will winter. Porter (1 pl 4 yrs 9" SK): Light pink (salmon-pink), double, 1.5", one per stem, rather sparse. Exhibition form, excellent substance. Upright growth, medium-green, glossy foliage. Some black spot, needs good protection. A nice rose but a poor performer—perhaps getting too much competition from adjacent perennials. Somerville (1 pl 2 yrs 18" ON): HT shape, 25 petals, exhibition form, good substance. Low grower, medium-green foliage. Black spots, not hardy. Lots of dieback, not many blooms. Stanton (2 pls 4 yrs 15" ON): A very pretty pink, some fragrance. Decorative form, good substance. Tall, upright growth habit, dark-green foliage. Some black spot, good hardiness. One of my favourites.

**HEIDI PARADE, Min** (Poulsen '00). MP, coral pink/cream to green petal bases. Porter (1 pl 2 yrs 6" SK): Coral-pink, double, sparse, exhibition form, good substance. Low, bushy, dull-green foliage. Performed poorly after a winter indoors, even though given a chill in the fridge. Hardly remember seeing blooms. Have left it outdoors so am hoping for better results in 2002.

**HIGH FLIGHT, MIN (patio, F?)** (Harkness, int White Rose

Nurseries, NR, int '01). W, tinged with green. Bishop (1 pl 1 yr 36" ON): Clusters—always in bloom, 1-1.5", good substance. Upright growth, small foliage with good texture. No disease. Use as background, or patio rose and for flower arranging.

**HOT TAMALE (SUNBIRD), Min** (Zary '93 int '94). YB, yellow-orange blend, 26-40 petals, slight fragrance, AoE '94. Decker (1 pl 6 yrs AK): Nice colour and form, lots of bloom. Healthy, deeper colour here than in pictures. Graber (Striking yellow-oranges, singles and in small clusters, excellent repeat—great colours. Exhibition form, very good substance. Upright growth, dark-green glossy foliage. No disease, hardy. Really like this one. (Last year for reporting this rose.)

**INCOGNITO, Min** (Bridges '95). M, dusky mauve, yellow base, 15-25 petals, slight fragrance. Decker (1 pl 2 yrs AK): A small plant, colour not attractive. Not rain-resistant or a good bloomer. Mildews. Graber (3 pls 4 yrs 18-20" ON): Dusky mauve with a yellow base, 2" blooms, mostly singles, good repeat. Exhibition form, excellent substance. Bushy, upright growth. Dark-green, glossy, foliage. No disease, hardy. Good repeat. Unusual colour—one of my favourites.

**INNOCENCE, Min** (Saville '97). W, pure ivory white, 26-41 petals, slight fragrance. Decker (1 pl 4 yrs AK): Nice ivory colour, and good foliage. Nice rose. Reasonably healthy.

**IVORY FESTIVAL, Min** (Laver '97 CAN): W, near ivory, 26-40 petals, very fragrant. Somerville (3 pls 2 yrs 12" ON): White, 35-40 petals, fragrant. HT exhibition form, good substance. Low, bushy growth, lots of light green foliage. Black spots. Love the fragrance. Love the rose—lots of blooms, but short stems. Stanton (1 pl 4 yrs ON): very pretty, not much bloom, some fragrance. Exhibition form, good substance. Compact bush, small dark-green foliage. Some black spot, good hardiness.

**JERRY-O, Min** (Saville '98). MR, light red, 25 petals, intense fragrance. Decker (2 pls 2 yrs AK): Very fragrant, opens quickly. Deep pink with bright yellow centres.

**JESYLN, Min** (Bridges '00 int '01). LY. Clausen (6 pls 1 yr 24" IL): High-centred, well-shaped blooms, very good substance. A vigorous grower, medium-green foliage. A touch of black spot. We hope it will survive the winter as a light-coloured bloom. Beautiful, abundant blooms on a very correct plant. An offspring of Fairhope, so the genetics are right.

**JILLY JEWEL, Min** (Benardella '96). PB. No reports.

**JINGLE BELLS (STRAWBERRY KISSES), Min (patio)** (Zary '98 int '95). DR, 17-25 petals, slight fragrance, AoE '95. No reports.

**LAVENDER SPOON, Min** (Spooner '95). M, single - 5 petals,

slight fragrance. No reports.

**LEMON GEMS, Min** (Walden '99). MY, 26-40 petals, slight fragrance. AoE '00. Decker (1 pl 12 yrs AK): Not quick to rebloom. Fades to a light yellow after quick opening.

**LIGHTS OF BROADWAY, Min** (Saville '93 int '94). RB, red/yellow, 41+ petals, no fragrance. Somerville (1 pl 2 yrs 15" ON): Very double, intense colour, exhibition form, solid substance, bushy growth, dark-green foliage. Black spots, hardy. One of the first to get black spot, but it kept coming back strong. Like this one. Stanton (1 pl 4 yrs 18" ON): Brilliant colour, lighter than Glowing Amber, almost neon red. Exhibition form, good substance. Tall, dark-green foliage. Some black spot, hardy. (Last year for reporting this rose.)

**LITTLE PINKIE, MicroMin** (Moore '00), MP, very double. Porter (1 pl 2 yrs 7" SK): MP fading lighter, double, small, long-lasting. Decorative form, excellent substance. Bushy growth, tiny leaves, medium green foliage. No disease, hardy with protection. Very slow to commence growth in spring, it took much of the summer to show any vigour.

**LITTLE TOMMY TUCKER, Min** (Tucker '98). MY, medium yellow/reverse lighter, 17-25 petals, no fragrance, AoE 1999. Decker (1 pl 2 yrs AK): Another yellow rose for colour. Opens quickly. A better rebloom than Lemon Gems.

**MAKE MINE SHERRY, Min** (Lougheed '94 CAN). RB. No reports. (Last year for reporting this rose.)

**MARGARET LAVER, Min** (Laver '01 CAN). W. Stanton (1 pl 1 yr 10" ON): Creamy-yellow, good size for a mini, some scent. Exhibition form, good substance. Upright growth, dark-green foliage. No disease.

**MARILYN WELLAN, Min** (Moe '99) (Sheri Anne x Wistful). AB, apricot reverse lighter, 17-25 petals, slight fragrance. Clausen (2 pl 1 yr 24" IL): Light apricot, 20-25 petals, profuse bloomer, little fragrance. Exhibition form, average substance. Very vigorous growth, dark-green, glossy foliage. Good disease-resistance. A great Mini named after a great lady, Vice-President of ARS. This rose was super as a first year plant.

**MAVERICK, Min** (Laver '95 CAN). RB (striped), medium red/striped light pink, 15-25 petals, slight fragrance. Stanton (1 pl 6 yrs 12-14" ON): One of the earlier striped roses and one of the best. Lots of blooms. Decorative form, good substance. Tall, upright growth, dark-green foliage. No disease, good hardiness.

**MISS FLIPPINS, Min** (Tucker '97). MR, medium red/deep pink reverse, 25-35 petals, no fragrance. Clausen (20 pls 3 yrs IL): Red, 25-30 petals, mostly exhibition, great substance. Give this variety a

year or two and watch them go. Beautiful, well-placed foliage. Very disease-resistant. Very hardy. Ten of my Miss Flippins are cleft-grafted. Don't tell Robbie, so it doesn't go to his head, but this variety has to be the best red. We now have a bed of 20 Miss Flippins planted by our new garden house and look out next season. Decker (1 pl 4 yrs AK): HT-type blooms and long-lasting in our cool climate. Dark red. Rain-resistant. One of the better reds. Graber (1 pl 3 yrs 12-14' ON): DR, lighter reverse. Mostly singles, lasts well. Exhibition form, great substance. Slow growth, dark-green, glossy foliage. Some black spot, not hardy—cover well. Great exhibition bloom, weak plant, slow repeat.

**MISTRAL PARADE, Min (?)** (Poulsen int '01). Colour (?). Porter (1 pl 1 yr 5" SK): Medium to light yellow. Very double, up to 80 petals, long-lasting, requires deadheading. Near exhibition form, excellent substance. Bushy growth, medium-green foliage. Some mildew. Grown only as a potted patio plant. Flowers that dried up on the plant held shape well, so should dry well when cut.

**MOONLIGHT AND ROSES, Min** (Bridges '98). M, light lavender with rosy edges, darker lavender and lavender overlay, 26-40 petals, slight fragrance. Decker (1 pl 2 yrs AK): A rose for warmer climates. Purple with cream, a different colour. Too many petals for rain-resistance.

**OLD COUNTRY CHARM, Min** (M. Williams '96). PB, pink with salmon, 30-35 petals, no fragrance. No reports.

**OPENING ACT, Min** (Jalbert '93 int '94 CAN). DR, smoky red, 5 petals, no fragrance. Clarke (3 pls 3 yrs 15-18" ON): Dark red like velvet, 5-petal single rose, blooms most of the summer. Upright, strong growth. Dark-green foliage. Hardly any disease, hardy in Southern Ontario. A real beauty. One stem in a small vase looks stunning! My all-time favourite Mini! (Last year for reporting this rose.)

**ORANGE PATIO WONDER, Min (patio)** (Jalbert int '99 CAN). OB. Brisbane (1 pl 1 yr 10" BC): Bright, light orange for me. Lovely frilly blooms in large clusters. Constantly in bloom, long-lasting. Full, high-centred form, excellent substance (1<sup>st</sup> yr) Full, branching growth habit, dark-green foliage. Very disease-resistant. A very attractive mini, and the frilly light-orange blooms are continuous. Like all my 1<sup>st</sup> year Minis it's in a pot—develops good roots. Stanton (1 pl 1 yr 12" ON): As with White Patio Wonder, not very prolific. Pretty orange when it comes. Decorative form, good substance. Spreading growth habit, dark green foliage. No disease.

**ORANGE ZEST, Min** (Laver '94 CAN). OB, very double, slight fragrance. No reports. (Last year for reporting this rose.)

**OVERNIGHT SCENTSATION, Min (MinFl)** (Saville '97). MP,



very fragrant. Decker (2 pls 4 yrs AK): More petals and less form than others in the series and more sprawling growth. A medium-pink here. Some disease, but certainly fragrant!

**PACIFIC SERENADE, Min** (Saville '97 int '98). DY, deep yellow fading to medium yellow, 15-25 petals, fragrant. No reports.

**PAINTER'S TOUCH, Min** (Laver '98 CAN). YB, rich golden yellow, petals edged in red. Somerville (1 pl 2 yrs 20" ON): Yellow-red blend, large, 20 petals. HT exhibition form, good substance. Tall, large dark-green foliage. Black spots, good hardiness. This one is very large for a mini, so will probably be reclassified. Won Best in Show at the CNE, so am pleased. Stanton (1 pl 4 yrs 12" ON): Big bloom, big foliage for a mini, lovely colour, holds well. Exhibition form, good substance. Tall, some black spot, good hardiness.

**PEACH FESTIVAL, Min** (Laver '97 CAN). OP, orange pink, creamy reverse, gold centres, 41+ petals, slight fragrance. Ouellette (2 pls 3 yrs 12" QC): Small double 35+ petalled blooms, lovely soft orange-pink, cream reverse. HT exhibition form, good substance. Bushy growth. Small, shiny, dark-green foliage. Some black spot. Hardiness good with snow cover. Still the best mini in the bed. In bud form ideal for tiny arrangements. Good repeat bloomer! Somerville (3 pls 3 yrs 28" ON): Very double, 40 petals, one per stem, HT shaped exhibition form. Very strong substance. Bushy, tall growth habit. Shiny dark-green foliage. Good hardiness. Very good Mini. Gets black spot late in the fall (organically grown). Strong and healthy. Blooms last for two weeks. A good Show rose. Stanton (2 plants 4 yrs ON): Lost one to drought this year—will likely buy again.

**PINK STRIKE, Min** (Laver '98 CAN). LP. Stanton (4 pls 1 yr 8" ON): Pretty colour, long bud. Exhibition form, good substance. Compact growth, small foliage. No disease. This was a replacement for one that succumbed to mildew and cold. The new one seems relatively disease-free.

**PINK PATIO WONDER, Min (patio)** (Jalbert int '99 CAN). MP. Brisbane (1 pl 1 yr 10" BC): LP, baby pink. Very double bloom, a very pretty shade of pink which fades gently. Mostly singles. Exhibition form, excellent substance. Full, branching growth. Dark-green, glossy foliage. Disease-free. A very pretty pale, baby pink, very floriferous. It's in a pot—I always grow minis in a pot the 1<sup>st</sup> year.

**POTLUCK BLUE, Min** (Laver '95 CAN). M, lavender-blue/silver reverse, 15-25 petals, no fragrance. No reports.

**PURPLE PARADE, Min** (Poulsen - no date given). M, magenta-deep pink, 25 petals. Ouellette (5 pls 3 yrs 6.5" QC): Clusters of

small blooms, 25 petals which quill as they fade, almost a two-tone display. Decorative form, quite good substance. Bushy, upright growth. Small, shiny, medium-green foliage. Some black spot, excellent hardiness. Good repeat bloomer. Needs deadheading of faded, spent flowers which encourages a continuous display at the edge of the rockery.

**PURPLE SUNSET, Min** (Mander '92 int '96 CAN). M, bicolour purple/cream reverse. No reports.

**RALPH MOORE, Min** (Saville '99). MR, dark velvet red/lighter red reverse, 17-25 petals, slight fragrance, AoE 2000. Clausen (4 pls 1 yr 18" IL): A clear red bloom, nice garden variety. Well-shaped bud. I find this variety sort of slow to start, but could improve. A nice dark-green, glossy foliage. Most of my roses were very clean from fungus problems, due to a weekly spray programme. If you grow container roses, Ralph Moore seems to do well. Roses respond to different soil conditions. Decker (1 pl 2 yrs AK): Not quite as deep a red as Miss Flippins and not as floriferous. Opens more quickly.

**RED PATIO WONDER, Min (patio)** (Jalbert int '99 CAN). DR. Brisbane (1 pl 1 yr 10" BC): Bright red, frilly petals, very double, very long-lasting, mostly singles. Decorative, very double form. Excellent substance. Full, bushy growth. Dark-green, glossy foliage. Disease-resistant. The brightest DR I've seen, and ruffled blooms. Never less than a dozen at a time, last at least a week. It's in a pot.

**REIKO, Min** (Jalbert '95 CAN). PB, medium pink/lighter pink reverse/occasionally flushed mauve, 15-25 petals, sweet fragrance. Brisbane (2 pls 2 yrs 15" BC): Beautiful bloom, a mini form of a perfect hybrid tea, delicate shades of pink, not a heavy bloomer but they last and last. Perfect exhibition form, excellent substance. Round and bushy habit, medium-green, glossy foliage. Disease-resistant. Needs some winter protection. My favourite and loveliest Mini, and it's fragrant! A cone of blended soil around it in winter protects it from our strong breezes and rain. Named for a lovely lady! Porter (1 pl 7 yrs 7" SK): Double, large, sparse. Exhibiting form, excellent substance. Low, bushy, weak growth habit. Light-green foliage. Slight black spot July to Sept., needs winter protection. Perennials are casting shade on it, so hard to evaluate fairly—needs more vigour. Somerville (1 pl 1 yr ON): Large double, 25 petals. HT exhibition form, good substance. Tall growth habit, dark-green foliage. Black spots. Lovely flower, slight fragrance. Stanton (1 pl 1 yr 12" ON): Very pretty, pink, shapely, good size, prolific. Exhibition form, good substance. Spreading habit, small, dark foliage. No disease, poor hardiness. Replaced

again—now in a pot where it is extremely robust.

**RIISING STAR, Min** (Jalbert '95 CAN). PB, white edged coral pink. 35-40 petals. Brisbane (1 pl 4 yrs 20" BC): Large, very double blooms, up to 2", 26-40 petals, mostly singles on long straight stems, slight fragrance. Exhibition form, excellent substance. Upright, branching growth, medium-green foliage. Disease-free, good hardiness. You will love this delightful blend of soft colours, always dozens of blooms—I really recommend this one! Definitely a patio-type. Porter (1 pl 4 yrs 19" SK): Creamy pink, with deeper pink edges. Double, borne singly, large, 1 3/4", long-lasting. Exhibition form, excellent substance. Bushy growth, dark-green foliage. Trace of black spot in Sept. only. Hardiness good with protection. One of my favourites—beautiful colour combination, showy, vigorous and reliable. Unfortunately the thrips love it. Somerville (2 pls 1 yr 26" ON): Very pretty, 30-35 petals, one per stem. HT exhibition form, very good substance. Tall strong growth, dark-green foliage. Black spots. Love this Mini. Very pretty, blooms a lot—still have blooms in December. Hope for hardiness. Stanton (1 pl 1 yr 15" ON): Very pretty, but not much of it. Exhibition form, good substance, Tall, large dark foliage. No disease.

**RIVER DANCE, Min** (Laver '98 CAN). PB, medium pink/cream stripes. Broks (1 pl 2 yrs 24" ON): Bright pink with white. Large for a mini, 30+ petals, clusters and singles, blooms all summer long. Exhibition form, excellent substance. Vigorous, upright growth. Black spots. Good hardiness. A beautiful flower that does well in shows—fragrant too. It lasts well when cut and is a prize-winner. My favourite Mini!. Graber (2 pls 2 yrs 12" ON): Variable, deep pink and white striping. 1.5+", centre holds well, lasts well in a vase. HT exhibition form. Excellent substance. Bushy growth, dark-green, glossy foliage. No disease, good hardiness. Lots of blooms from every internode—needs disbudding to exhibit. Great variety in stripe patterns—always pretty, a very good rose. Somerville (7 pls 2 yrs 15-18" ON): Pink with white and cream stripes. Full, 35 petals, singles and clusters, exhibition form, excellent substance. Medium-tall growth, medium-green foliage. Black spots, very hardy. Lovely rose still blooming in November. Easy show rose. Stanton (2 pls 4 yrs 8-10" ON): Pink and white stripes, very pretty. Decorative form, good substance. Small, compact growth. Small, medium-green foliage. Some black spot, good hardiness.

**RUBY BABY, Min** (Christopher '00 int '01) (sport of Hot Tamale). RB. Clausen (10 pls 1 yr 24" IL): Orange/red, exhibition-type, usually one bloom per stem, well-shaped, very good substance. Hardy and vigorous, dark-green foliage, good disease-resistance.

One of the best new introductions in our garden. This variety has shown up in the Court of Honor at a few shows. It will be popular as both a garden and an exhibitor's cultivar. .

**SANDALWOOD, Min** (Jalbert '95 CAN). R, russet with lighter edges, 15-25 petals, some fragrance. Brisbane (1 pl 3 yrs 10" BC): Double bloom, unusual terracotta for me, 15-25 petals, singles and small clusters, no perfume. Exhibition form, excellent substance. Round, bushy growth habit, mid-green, glossy foliage. Disease-free, tender anywhere. Another favourite of mine—the colour is fascinating. It's in a pot and I bury the pot each fall—it survives, then blooms steadily. Visitors love it. Stanton (1 pl 1 yr 10"): Good, interesting colour, semi-double form, good substance. Small, compact growth. Small medium-green foliage. No disease. Definitely tender for me. Now in a window box to be taken into the greenhouse.

**SANTA CLAUS, Min** (Oleson '91 int '94). DR, 15-25 petals, slight fragrance. No reports. (Last year for reporting this rose.)

**SCENTSATIONAL, Min** (Saville '95). M, light lavender, 6-14 petals, very fragrant. Decker (2 pls 4 yrs AK): Best of the "Scentsations" here with more mauve, better plant and blooms. Heavy scent—certainly scentsational!!

**SEATTLE SCENTSACTION, Min** (Saville '97). PB, yellow, apricot base and mauve pink, 15-25 petals, very fragrant. Decker (2 pls 5 yrs AK): Mostly mauve/pink with other pastel shadings. Sparse foliage. Heavy fragrance. May mildew.

**SERENE BOUQUET, Min** (Laver '98 CAN). PB, medium to dark pink/white reverse, nice fragrance. Stanton (1 pl 4 yrs ON): Usually multiple sprays, plentiful, pretty PB. Decorative form, good substance. Upright growth, dark-green foliage. Some black spot, hardy.

**SILKEN LAUMANN, Min** (Laver '93 int '94 CAN). OB, luminous orange/yellow reverse, 26-40 petals, slight fragrance, 1994 Commonwealth Games Miniature. No reports (Last year for reporting this rose.)

**SNOW PARTY, Min** (Poulsen int '98). W, near white, 15-25 petals, wild rose scent. Porter (1 pl 2 yrs 3" SK): Double, singles, decorative form, good substance. Bushy, dark-green foliage. Bought late in 2000, it was overwintered in the fridge and planted out in the spring. Flowering was sparse, but it made a strong plant by fall 2001.

**SPRINGWOOD CLASSIC, Min** (Laver '99 CAN) (seedling x seedling). MP, 26-40 petals, no fragrance. Stanton (3 pls 5 yrs 10" ON): Lots of pretty orangey-pink blooms, repeats well. Decorative form, good substance. Compact growth, small medium-green

foliage. No disease, good hardiness. I received this as a test plant 4 years ago—I am glad to see it introduced.

**STRIPED FESTIVAL, Min** (Laver '99 CAN). RB, very rich stripe, deeper than most, 17-25 petals, slight fragrance. Broks (1 pl 2 yrs 12" ON): Large, 30+ petals, one per stem, long stems, repeats June and Sept. Exhibition form, good substance. Six upright stems, light-green leaves. Susceptible to black spot. Hardiness good under Styrofoam cover. Pretty flowers that show well, not very prolific. Doesn't like heat! No fragrance, long-lasting bloom when cut. Wins awards for me. Stanton (1 pl 1 yr 10" ON): Striped red, fairly floriferous. Decorative form, good substance. Vigorous growth, small shiny foliage. Some black spot. Replace Striped Pet which it closely resembles.

**SUMMER FESTIVAL, Min** (Laver '97 CAN). RB, red/white striped, delicate fragrance. No reports.

**SUMMER WEDDING, Min** (Jalbert '95 int '96 CAN). MP, 26-40 petals, light fragrance. Stanton (2 pls 4 yrs 8-10" ON): A very pretty pink, decorative form, good substance. Brad has discontinued this one because of disease problems, but it does well in my garden.

**SUN SPRINKLES, Min** (Walden '99 int '01) (Yellow Jacket x seedling). DY, deep yellow, 26-40 petals, slight fragrance, AARS 2001, AoE, US 2001. Laberge (10 pls 1 yr 24" QC): Deep yellow—bright and rich. Double, 25-30 petals, rosette shape, in clusters. Decorative form, good substance. Erect, bushy growth habit. Abundant, glossy foliage. Light spicy fragrance, a good patio rose size, in bloom up to October. Porter (1 pl 1 yr 17" SK): Brilliant, deep yellow fading eventually to cream. Double, 2", long-lasting, profuse, almost continuous. Exhibition form, excellent substance. Bushy growth habit. Leathery, dark-green, abundant foliage. No disease. Outstanding yellow—best I've grown. I would take it over Rise 'n' Shine. Won award for best Mini in 2001 Sask. Horticultural Assoc. Show.

**SUN CHARIOT, Min** (Jalbert '95 CAN). MY, bright gold stamens, 15-25 petals, fragrant. Brisbane (1 pl 4 yrs 18" BC): Semi-double, lovely medium yellow, bright gold stamens a bonus, singles and small clusters, continuous bloom. Cup-shaped decorative form, very good substance. Tall, vigorous growth. Medium-green, matte foliage. Disease-resistant. Good hardiness. Another bonus—it's fragrant! Visitors comment on its brightness and dozens of blooms. In a colourful group of four of Brad Jalbert's patio-type minis. Broks (1 pl 1 yr 30" ON): Buds are deep yellow tinged with red, opens to a medium yellow tinged with pink. Large, 20+ petals, opens quickly, 2.5" in diameter, lots of yellow stamens. Exhibition form, excellent substance. Bushy growth, rich green foliage.



Resistant to black spot. A large, bushy miniature rose with lots of blooms. Little fragrance. A good show of colour in the garden. Bloomed well in June and again in Sept. Ouellette (2 pls 5 yrs 18" QC): Semi-double, mostly singles, beautiful yellow with gold stamens, fragrant. Decorative form, good substance. Bushy, upright growth habit. Medium-glossy, green foliage. Some black spot. They come through our winters in Zone 5b without anything but snow to protect them. Will increase by cuttings to replace less desirable Minis. Somerville (1 pl 2 yrs 20" ON): Pale yellow opens to bright yellow stamens., 15 petals, opens fast. Decorative form, good substance. Medium grower, medium-green foliage. Black spots, good hardiness. Have to catch it at the right time to show—opens fast. Good repeat.

**SUPER CASCADE CORAL, Min** (Jalbert '96 CAN). OP, coral, 50 frilly petals, slight fragrance. Brisbane (1 pl 3 yrs 12" BC): Warm coral-pink blooms, 50 petals, very frilly, in large clusters, very floriferous, slight fragrance. Decorative form, very double. Excellent substance. Short and bushy, dark-green glossy foliage. Disease-resistant, good hardiness. Reluctant at first, now it cascades and is very attractive. I have had it in a very large pot for 3 years and it is quite happy.—as long as I feed it. Graber (1 pl 5 yrs 12" ON): Bright orange-salmon, frilly petals, mostly sprays, cascades down over the sides of a black pot. Very double, decorative form. Good substance. Cascades, mid-green, semi-glossy foliage. No disease, good hardiness. Always in bloom, even now at the end of October. Great burst of colour on the back porch. Stanton (3 pls 4 yrs 15-18 A ON): Grows well, blooms well, usually lots of it. Decorative form, good substance. Spreading habit, dark-green, shiny foliage. No disease, good hardiness.

**SWEET CAROLINE, Min** (Williams '98). RB, 17-25 petals, no fragrance, AoE 1999. Clausen (2 pls 2 yrs IL): Red and white blend, well-formed. Many high-centred blooms, very good substance. Attractive foliage, no disease, good hardiness. Makes an attractive border plant. A very vigorous plant. I plan to start a few more next spring. Decker (1 pl 3 yrs AK): Bigger plant and blooms than Magic Carrousel, but not as rain-resistant or floriferous, but similar colour here.

**SWEET MELODY, Min** (Fischer '98). AB, apricot/light pink, sport of Pierrine. No reports.

**TOUCHÉ, Min** (Laver '95 int '96 CAN). OP, 41+ petals, very fragrant. No reports.

**TRICKSTER, Min** (Bridges '95). RB, red/white reverse, 28-30 petals, very fragrant. Clausen (3 pls 1 yr 24" IL): Fragrant, high-centred form, good substance, average growth, beautiful dark-green

foliage. Some black spot. I like the colour combination of this variety. It reminds me of a Mini HT if that makes sense.

**TROPICAL TWIST, Min** (Walden '97). OP, dark orange-yellow, AoE 1997. No reports.

**TRUE GOLD, Min** (Laver '97 CAN). DY, intense golden yellow, 41 petals, no fragrance. Stanton (2 pls 1 yr 12" ON): Large pointed outer petals. Exhibition form, good substance. Erect growth, dark-green foliage. No disease.

**VELVET TOUCH, Min** (Saville '93 int '94). MR, 15-25 petals, slight fragrance. No reports. (Last year for reporting this rose.)

**VISTA, Min** (Saville '94). M, soft lavender, 15-25 petals, slight fragrance. Decker (2 pls 4 yrs AK): A favourite! Always has lots of single blooms; occasionally a small cluster. Medium mauve. Healthy, rain-resistant. (Last year for reporting this rose.)

**WATER LILY, Min** (Jalbert '98 CAN). LP, light pink fading to white, very double. Brisbane (1 pl 1 yr 15" BC): Beautiful large-cupped bloom. pale pink colour fades to delicate ivory, floriferous and they last for 5 to 6 days. Exhibition form, excellent substance. Upright grower, dark-green foliage. Disease-resistant. Brad says "porcelain-like" and that describes it. First year for me but well worth trying—you will enjoy its delicacy. I always grow new minis in pots the 1<sup>st</sup> year. Clarke (2 pl 2 yrs 15-18" ON): Large, double blooms—possibly will be a Mini-flora. Light pink opening to white. Decorative form, good substance. Upright growth, dark-green foliage. No disease, no winter dieback. I think this will become a favourite for many. Graber (1 pl 2 yrs 20" ON): Cream to light pink. Very double, cupped bloom. Decorative form, very good substance. Tall, upright growth, dark-green foliage. No disease, good hardiness. Somerville (1 pl 1 yr 14" ON): Very pale pink, not many blooms in the first year. Decorative form, good substance. Bushy, low growth, medium-green foliage. Black spots. I hope it survives the winter. Pretty flower, not many so I hope it improves with time. Black spots when grown organically. Stanton (1 pl 1 yr ON): More white than pink in my garden, prolific. Decorative form, good substance. Tall slender growth. Shiny green foliage which is large for a mini. No disease, good hardiness.

**WHITE PATIO WONDER, Min (patio)** (Jalbert int '99). W. Graber (1 pl 1 yr 14" ON): White, touch of pink in cooler weather, 1.5", lots of sprays, good repeat. Very double, decorative form. Vigorous, upright growth. Dark-green, glossy foliage. No disease. Very impressed in first year. Good looking plant. Stanton (1 pl 1 yr 10" ON): A nice white rose Age may improve it—not very prolific. Decorative form, good substance. Compact growth, dark-green foliage. No disease.

**WIND RHYTHM, Min (MinFl)** (Jalbert int '01 CAN). OB. Graber (1 pl 1 yr 12" ON): Deep yellow painted red, yellow reverse, 2", mostly in singles. Double, decorative form. Very good substance. Upright growth habit. Small, mid-green, semi-glossy foliage. No disease. Very pretty colouring, delicate looking. Stanton (1 pl 1 yr 18" ON): Lovely butter yellow. Long buds, exhibition form, good substance. Tall and erect grower, matte foliage. No disease. Holds shape and colour well.

**WISTFUL, Min** (Saville '94 int '95). M, 15-25 petals, slight fragrance. No reports.

**X-RATED, Min** (Bennett '93 int '94). PB, white/light pink edging, 26-40 petals, very fragrant. Clarke (1 pl 1 yr 15" ON): White blooms with light-pink edging. HT form, good substance. Upright growth, dark-green foliage. No disease. A little disappointed, only a few blooms, but may have been the dry season. Have seen what it should be like, so hope it will survive the winter and perform better next year. Decker (1 pl 6 yrs AK): Exhibition-type. Fairly heavy bloom, mostly singles. Cream with coral-pink edging. Somerville (2 pls 1 yr 22" ON): White, pink-edged, very pretty, fragrant, 30-40 petals. Exhibition form, good solid substance. Tall, dark-green foliage. Black spots and mildews. I love this rose, one of my favourites. It had mildew when I bought it, black spot late in the season (I grow organically). A beauty, sure hope it winters. Stanton (1 pl 1 yr 12" ON): Pretty, but not much of it. Exhibition form, good substance. Upright growth, light-green foliage. No disease. (Last year for reporting this rose.)

**YEAR 2000, Min** (Jalbert '00 CAN). RB, edged bright red, patio type. Brisbane (1 pl 1 yr 14" BC): Large bloom, very full-petalled, mostly singles. Constantly in bloom and they last for days. Full, high-centred form, excellent substance. Branching growth habit, dark-green foliage. Very disease-resistant. A patio-type in a huge pot. First bloom startled me—brilliant yellow with fiery orange/red edging—now I love it. Looking for something different? Stanton (1 pl 1 yr 10" ON): Nice when it blooms but not often enough. Long buds, exhibition form, good substance. Compact growth. Medium-sized shiny foliage.











